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WISH YOU WERE HERE

Dartmoor Classic

Taking place on June 26 is the 10th edition of the Dartmoor Classic. Organised by Mid-Devon Cycling Club, the event attracts riders from around the world and sells out its 4,000 places within hours.

The Grande distance is a brutal 107 miles, encompassing steep hills and wide-open moorland, where riders are lashed by unrelenting wind. Ascending a little over 3,000 metres, including gradients of up to 20 per cent, it's a real challenge even for the best climbers. Stunning Devon scenery and beautiful landscapes make this a memorable event and a route worth riding at any time of year. www.dartmoorclassic.co.uk



Photograph: Jesse Wild

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visit macmillan.org.uk/londontoparis
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RIDE VENICE TO ROME

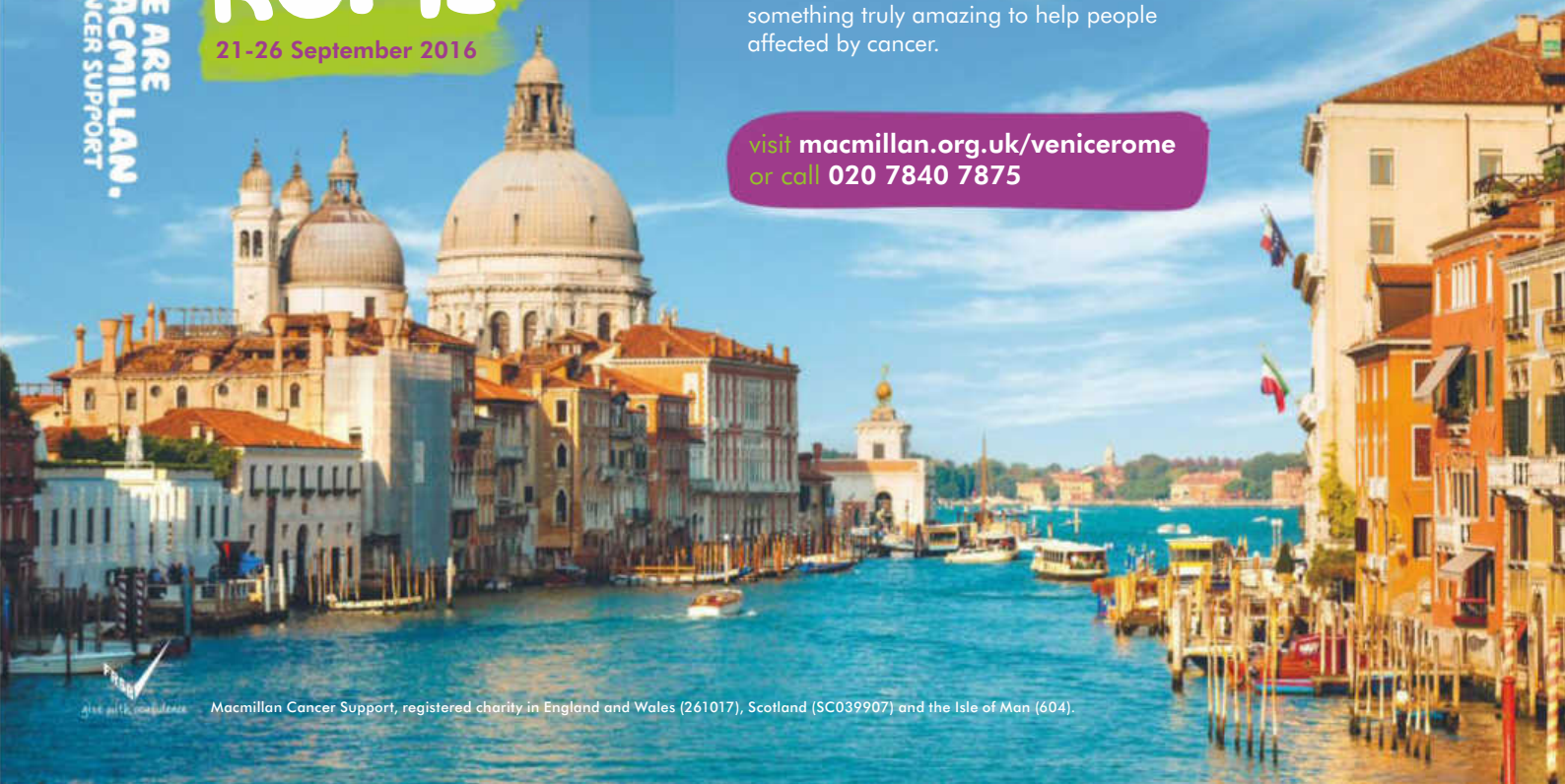
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Venice to Rome Cycle Challenge

Join Team Macmillan for this 620km ride from the canals of Venice to the historic Italian capital of Rome. Our route is hilly, with some long climbs and takes us south through the rolling hills of Tuscany, passing traditional villages and fruit farms. You'll feel incredible as you finish in Rome, but most importantly you'll have done something truly amazing to help people affected by cancer.

visit macmillan.org.uk/venicerome
or call 020 7840 7875





Strava reveals fitter Brits

According to stats released by Strava in the New Year, we uploaded 5.3 activities every second to our favourite online training community in 2015. Over 23 million rides were uploaded in the UK revealing an average speed of 24.3kph for the men and 19.8kph for females. The average

London was the most active location in the country with

75,605
rides logged

The world gained

40,621,683,169
metres in elevation on Strava

cycling commuter distance in the UK is 15.9km, ridden at a pace of 23.7kph.

Proving we're still hungry to shout about our training efforts and chase segments, these 'End of Year Insights' show that cycling uploads on Strava continue to grow as Britain's riders logged 23,126,613 individual rides throughout the year, totting up 684,891,474km along the way. Men recorded 41km for each ride, while women averaged 34km.

Simon Klima, Strava UK country manager, said: "The UK's Strava story offers an unprecedented opportunity to analyse and interpret a broad spectrum of data, helping to understand behaviour

and habits as well as providing real-world feedback on how people use their local roads for exercise and commuting."

CA says...

Forget the tear-jerking John Lewis ad, it was the bike riders sharing a Mars Bar on their morning commute that we noticed on the box in the New Year, reaffirming the popularity of cycling. The biggest brands want in on a slice of the action and as Sir Dave Brailsford reminds us on page 14, it doesn't matter what level you're at, we can all reap the benefits.

At this time of year it's easy to think you're falling behind, but we found the national average speeds revealed by Strava quite encouraging. Whether we're recording our data or not, as we head into another Olympic year we're seeing more events to ride than ever before and a year of cycling we're sure will be one to remember.

Editor's letter

Whatever the weather

Spring may be just around the corner, but if you are trying to tackle the build-up of miles and shed some Christmas weight, it can still feel very much out of sight. If you've been committed to riding all autumn then by now there's a fair chance you are becoming fed up of riding in bad weather. If you are just beginning to get back to proper miles after the holiday season then the weather is a strong deterrent to keeping your New Year's resolutions.

For bad weather inspiration I've looked to Irish rider Sean Kelly, a rider noted for his ability to suffer. He is reputed to have said something along the lines of: "I go out on my bike and when I get home I decide if it was too wet." And it's pretty good advice. Kit up and get out there before your brain has time to engage with the fact that there are rivers of water running down the window frame. Weather always looks worse from the inside looking out.

Bearing this philosophy in mind I've been trying to force myself out regardless, at the bare minimum just the commute to work and back, and I've noted that seven miles feels like a significant distance.

I think this mileage feels significant for a reason. Physically it puts enough distance between home and work to feel the metaphorical ties drop away. It allows enough time to process and discard the niggling annoyances, bad mood or stressful thoughts that can distract from really enjoying a ride.

Seven miles is also about the right distance physiologically. It's enough riding to warm up and generate enough body heat to fight off the chill of the day. In seven miles you've had time to fully assess the weather. And if you've got wet, it's long enough to saturate you, and if you can't possibly get any wetter then you might as well keep going.

With the internal battle dispatched, the grump about the weather dismissed and body temperature at the right pitch to surround me in a cloud of steam I'm all set to stay out longer. Pretty much regardless of the weather outside is always better.

Hannah

Hannah Reynolds, Editor





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Canyon responds to customer complaints over delays

Canyon has apologised for delays in production that have left some customers waiting months for their new bikes. The issues have been blamed on teething problems with getting a new factory and computer system up and running, combined with reduced customer service capacity over the Christmas period to deal with complaints.

The German company has been the subject of vocal criticism on social media as customers have taken to Facebook and Twitter complaining that they had been given expected delivery dates months later than previously promised, and that they were struggling to get in contact with the customer services team.

One customer who contacted *Cycling Active* said that despite ordering his Canyon Endurance in September, the delivery had been pushed back to the end of March, more than six months after the initial order.

Frank Aldorf, Canyon's brand manager, said that this stemmed from two main issues.

"In October we switched to a new \$20 million production facility in Koblenz where we assemble the bikes," Aldorf told *Cycling Active*. "It's a top quality, state-of-the-art production line similar to what is used in the car industry."

"At the same time we switched to a different software, but unfortunately we had quite a few bugs during the switchover."

"In the long term these changes will help us to fulfil the high demand for our product and to make our customers more happy. But since October it's gone the other way"

However, Aldorf also said that the company was doing all it could to resolve the problems, and would be working to manage customer expectations.

"We're shipping out 300-400 bikes per week, and producing more than 1,000, so it's definitely working," he said.

"We've also decided to be more generous with the expected delivery dates that we're giving out. In the past we always thought that we could deliver quickly, and when we couldn't that was frustrating for customers."

THIS MONTH'S STATS

100,000

The cap on the public ballot for the Prudential RideLondon-Surrey 100 this year

76,076

Kurt Searvogel has broken the highest annual distance record of 75,065 miles held by British rider Tommy Godwin since 1939

"No matter what you do when you're 30, your body reacts differently to when you were 20. It's OK, it's about learning what it takes."

Mark Cavendish



Ride UK 24 Newcastle to London in 24 hours

"I would recommend the ride to anyone who wishes to push themselves that bit harder and I think because of the nature of the ride, I've made some good friends along the way too."

Paul Whitlock
Time: 19hr 30min
Distance: 310 miles

Rider's rating



Deloitte Ride Across Britain by Threshold Events (Land's End to John o' Groats)

"Well organised and fully supported with well thought-out routes, beautiful scenery and plenty of hills. It's a must-do event."

Trudy Sharam
Time: 9 days
Distance: 960miles

Rider's rating



Bike Bath

"This stands out as being one of my new favourite cycling events. My first time riding Cheddar Gorge... Wow! What a beautiful part of the world. I set a very respectable time on that climb, too."

Ian Upham
Time: 4hr 59min
Distance: 80miles

Rider's rating



3 Pistes sportive

"It takes in three of Scotland's five ski resorts including a 20 per cent climb up to the Lecht which I'm embarrassed to say I had to walk (I'll be back next year to do it properly!)."

Peter Bonfield
Time: 8hr 16min
Distance: 103 miles

Rider's rating



Tour of Cambridgeshire

"Closed roads, a chance to qualify for the World Amateur Champs and huge support from people cheering us on from the roadside. Incredible, definitely the highlight of my year."

Mike Edmunds
Time: 3hr 48min
Distance: 82km

Rider's rating



Eroica Britannia

"The atmosphere was amazing. Fancy dress, steel bikes and lots of great food stops on the route. All these things plus more promised for 2016. Tickets already bought. It really has changed my life!"

Kevin Jackson
Time: 3hr
Distance: 30 miles

Rider's rating



Velothon Wales

"Amazing event with huge crowds cheering on riders as they went past. The final climb was Caerphilly Mountain which left an exhilarating eight miles of downhill riding to the finish in Cardiff!"

Miguel Sutcliffe
Time: 5hr 30min
Distance: 87km

Rider's rating



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Sir Dave Brailsford

The Team Sky principal has been integral to the growth of cycling in Britain

1 There are lessons from everywhere along the way, good and bad. You need that intrinsically driven individual, you can't reach inside somebody and switch the switch on for them. But, if it is on and it's burning brightly what we can do is turn it off quickly and so you've got to be very careful and think through these things.

2 Whether you're an amateur or a professional rider I'd start by looking at what it is you're trying to achieve. If that goal could be helped by using information [such as power data] that's going to help you make better decisions, if it's going to be motivational, then yes. Some people naturally have more affinity with data and that's how they run their lives and some people don't. I would push people to think about what it is they want to do, and if it's for health, or if it's for weight loss, stress, or just getting some fresh air and keeping

yourself active, or perhaps it's with the family I would start with that and work back.

3 I think in the last 10 or 15 years the nutritional strategy fundamentally shifted from a predominantly carbohydrate-based focus to more of a carb/protein mix and I think we're now understanding the timings of when to eat foods in relation to exercise. So I think there's been a general shift in how we've approached nutrition in cycling and I think in life in general, and I think nutrition has probably changed more than the training side has in the last 15 years or so really.

4 I think it is like parenting in a certain respect when you're running a team because there's no guarantee of success, you don't know that what you do is going to succeed. From my point of view you step back and

have a look at what you have in front of you, right here, right now. And then you've got some basic first principles which you try and contextualise and apply to what you do next.

5 You need a sense of purpose. Every time you cock your leg over a bike you've got to think, "I know what this session is for, I know why I'm doing it and I'm committed to it." If you haven't got that clarity then your training's a little less focused, a little less pronounced in how you're going to go about it.

Sir Dave Brailsford was speaking to Rebecca Charlton at An Evening With Sir Dave Brailsford and Alastair Campbell supporting Cycling Active's charity partner Bloodwise.



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Hardware



Edco Optima Albis 50C £999

These 50mm deep-section wheels are new from the Swiss brand. They feature a U-shaped cross-section and come with a set of 25mm Continental Grand Prix 4000SII tyres. The clever MultiSys cassette body accepts both Campagnolo and Shimano cassettes.

www.edco-wheels.co.uk



Cosine Saddle £23.99

Cosine is Wiggles's new components brand. This saddle is light and intended for multidiscipline cycling with a shallow convex profile for sit-bone support. Featuring a pressure relief zone and titanium rails, it offers excellent value over the competition.

www.wiggle.co.uk



Time Xpresso 6 Pedals £94.99

A hollow steel axle with a composite body means that these pedals weigh just over 200g a pair, therefore offering considerable bang for your buck, being lighter than Dura-Ace. They also offer a greater degree of float than Shimano.

www.extrauk.co.uk

Ritchey WCS Logic II 38mm Handle Bars £77

Ritchey components have a reputation for high quality. The Logic II bars are no exception, with a matte finish suggesting they cost more than the retail price. Available in widths from 38-44cm. The narrow and aerodynamic 38cm version is pictured.

www.paligap.co.uk





Veho Pebble Mini Stick £19.95

With many cyclists using a GPS and carrying a mobile phone, there's plenty of scope for flat batteries and range anxiety. The 'Pebble' is a light, compact way of carrying enough extra battery power to keep those electronics working.

www.veho-world.com



Hoy Tools £17.99-£19.99

Sir Chris had a significant and exacting input into the design of his tools, which feature solid custom American Ash handles. The choice of wood is a nod to the boards of a velodrome, giving these dependable looking tools a strong sense of authenticity.

www.evanscycles.co.uk



Elite Real Turbo Muin B+ £999

The Muin B+ is Elite's top of the range smart trainer. It is a direct drive unit, offering a very realistic ride feel and progressive resistance. The resistance is both fluid-dynamic and magnetic, and managed electronically, making it ideal for virtual reality apps such as Zwift.

www.madison.co.uk



Exotic CNC Machined Jockey Wheels £11.55

With a choice of eight colours these pulley wheels are a really cool way to add some bling to your bike. Designed for 11-speed chains, they are precision CNC-machined from a tough and resilient 7075 T6 alloy. They are light too, at just 10g each.

www.carboncycles.cc



Challenge Strada Special Edition Tubular tyre £85

With a width of 25mm, a 300 tpi casing and two layers of puncture protection, these tyres are designed to be reliable, offer superb grip and also roll beautifully. At 295g these handmade tubs are pretty light too.

www.paligap.co.uk



Piccino Coffee machine £936

Cycling is synonymous with coffee. The Piccino is compact and easy to use, and can be colour co-ordinated to match your home. For true baristas the most fundamental function might be the ability to make two coffees at a time and steam milk simultaneously!

www.fracino.com

Software



Assos Zegho Werkmannschaft Sunglasses £309.99

Claimed to be the most advanced cycling-specific eyewear available, the Zegho was developed in partnership between Assos and Carl Zeiss. It's Impressively light, with a huge lens that uses Tunnel View technology – the lower portion of the lens is lighter, allowing clearer vision in dark tunnels.

www.assos.com



X-Bionic Arm-Warmer No Seam £41

According to X-Bionic, these warmers employ high-tech knitting technology in the form of a system of chambers and channels that unfolds, like an accordion, at the elbow joints. These 'ExpansionRibs' improve the ability to insulate rather than thinning out.

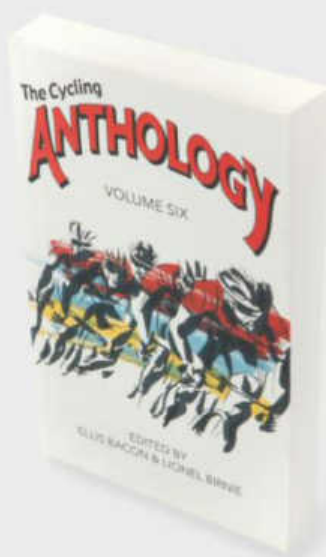
www.X-Bionic.co.uk



Rapha Pro Team Softshell Jacket £200

Rapha's softshell is designed to be a versatile jacket for high-intensity riding in wet conditions. Rapha has updated its Castelli Gabba-rivalling softshell by changing the fabric to Polartec's Power Shield Pro in a bid to make the jacket more breathable than the previous version.

www.rapha.cc



The Cycling Anthology (Volume 6) £8.99

Bacon & Birnie's anthology is a superb companion for those who love everything two wheels. Following on from the previous five volumes, the book contains chapters about cycling from great writers and professional cyclists.

www.lionelbirnie.com



Castelli Linea Pelle Creams £40 for all three combined

Better known for its premium clothing, the Italian brand has just launched a range of creams for different riding conditions, comprising Chamois Cream, Warm-Up Cream and Foul Weather Cream. Each product comes with a hygienic pump bottle dispenser.

www.saddleback.co.uk



Giro Synthe MIPS £224.99

As worn by Katusha and BMC, the Synthe is a great looking lightweight aero helmet. Although outwardly the same, this new version has been updated with MIPS (Multi-Directional Impact Protection System), which is said to provide more protection in certain impacts. It is, however, £25 more expensive.

www.zyro.co.uk



Fizik R3B Uomo Shoes £199.99

Famously worn by the likes of Geraint Thomas, the R3B is a premium quality, very comfortable Italian road shoe, with a stiff carbon sole and Boa dial closure system for easy adjustment. Available in three colours, the styling is classy and understated.

www.extrauk.co.uk



Bontrager Ballista Jersey £119.99

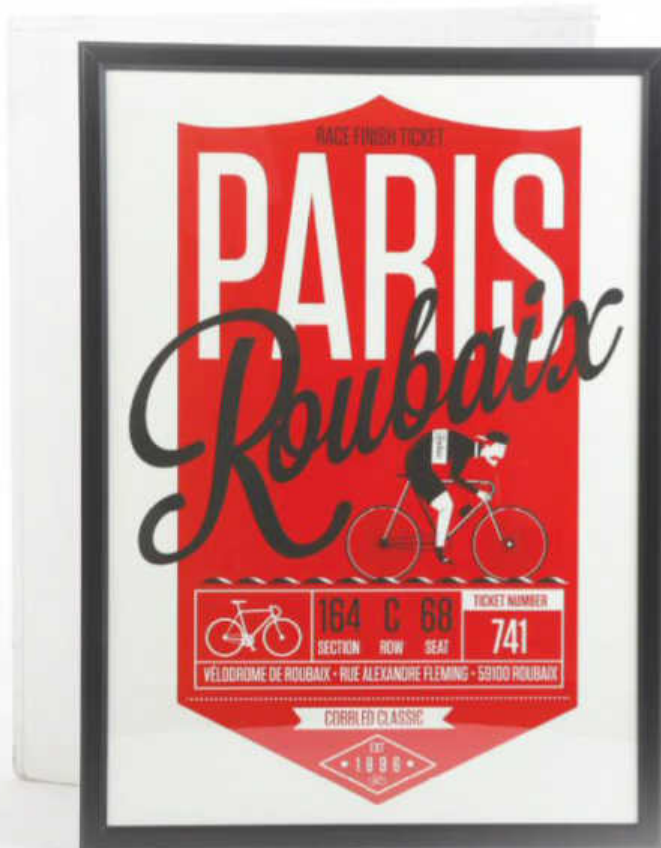
Aimed at the performance-orientated rider, the Ballista jersey and shorts are designed for power-hungry cyclists in search of faster sprints. The garment's aero fit and performance fabrics are claimed to offer significant aero advantages over conventional kit.

www.trekbikes.com

Neil Stevens Cycling Prints £30

Neil Stevens is a creative illustrator, image-maker and graphic artist based in St Albans and London. Although his work covers several subjects, he has produced a large array of really cool cycling prints available in either A3 or 500/700mm (fitting standard frames). With a large selection available, the two pictured celebrate Milan-San Remo and the Paris-Roubaix. In addition to looking great, they have the potential to serve as excellent clues when your home is on Through the Keyhole, instantly communicating your passion.

www.crayonfire.prosite.com





De Rosa Protos £8,599.99

De Rosa is a bike brand as Italian as they come, and the Protos is its top frame. Decked out in Campagnolo Super Record, here's the spec for this superbike

De Rosa has been around since the 1960s and provided the bikes to the Molteni team on which Eddy Merckx won the Tour de France, the Giro d'Italia and the World Championship. It's a family business and at age 81 the founder, Ugo De Rosa, is still involved in running the company.

The Protos frame alone costs £4,000 and is handbuilt in Italy using three different grades of ultra-high modulus carbon-fibre. It's got a huge squared-off down tube, designed for an ultra-responsive ride, but nevertheless weighs a claimed 900 grams. Kitted out with Super Record and the new, extra-wide Fulcrum Racing Quattro carbon wheels, it weighs just over 7kg.

The Protos is an out-and-out race bike, with a long top tube and short head tube promoting a stretched out, flat-backed riding position, making it ideal for criteriums and circuit races. It's stiff too, with a short wheelbase and steep frame angles making the bike responsive. The bottom bracket shell is 86.5mm wide, leading to wide bearing placement for efficient power transfer and providing plenty of room for the junction with that wide down tube.

As well as the eight standard sizes available, De Rosa will also custom build the frame for you. Since i-ride imports the frames only, you can specify your own finishing kit and have the bike built to your exact requirements.

Drivetrain

Front derailleur:

Campagnolo Super Record

Rear derailleur:

Campagnolo Super Record

Cassette: Campagnolo Super Record 11-25t

Chain: Campagnolo Super Record

Brakes: Campagnolo Super Record

Chainset: Campagnolo Super Record 52/36t



Frameset

Frame: Protos, 50% TI 800, 40% TI 1000, and 10% XN60 carbon-fibre

Fork: Protos Head Flat Face design

Seatpost: 3T Ionic Team Stealth

Finishing Kit

Handlebar: 3T Aeronova Team

Stem: 3T Arx Ltd

Saddle: Prologo Scratch Nago Evo, TiroX rails

Wheels

Wheelset: Fulcrum

Racing Quattro Carbon 40mm clincher

Tyres: Vittoria Open Corsa CX 25mm



As well as the eight standard sizes available, De Rosa will also custom build the frame for you

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The original HollowGram cranks were released 15 years ago and this is the latest evolution of the product. Weighing just 445g for the 53/39t with 172.5mm cranks, this chainset is considerably lighter than a Shimano Dura-Ace 9000 chainset at 636g. Cannondale also says that this chainset is stiffer than Dura-Ace, a claim backed up by third-party testing.

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If you are looking for the lightest, stiffest chainset on the market, then look no further than the Cannondale SiSL2 HollowGram cranks and SpideRings.

www.cannondale.com



Off the sofa and back into Zone 2 in search of long-lost fitness



Christmas over, *Simon Warren* sets about making up for weeks spent slowly gaining weight and losing form. Will taking a decidedly New School approach to training be his ticket to summer fitness?

With the season of over-indulgence and lack of self-discipline now a fading memory, and the temple you spent all the summer building lying in ruins, it's time to get back onto the straight and narrow. Stomach bloated, blood poisoned, lacking tone and with the legs overgrown with a covering of unsightly hair you need to re-find the athlete within.

The same thing happens every January, you must react to the weight of guilt on your shoulders crushing you into that comfortable indent you've created on the sofa and get back out on the bike. Looking in the mirror, sucking the stomach in and cursing that time you decided to eat eight mince pies for breakfast, the task of getting back in shape, as always, just seems insurmountable. Every year the devastation appears worse than the year before — don't even think about stepping on the scales, for the psychological damage would be too much for the fragility of a cyclist's brain to cope with.

I've painted a dark picture so far but it's not a hopeless situation. It can be done — it will just take some proper graft. With the enthusiasm of a tiger cub, I dig out those old magazines packed with training plans, construct an exacting schedule, stick it on the fridge and promise to myself to stick to it. Oh yes, this year I'm going to train like a pro, blank canvas, no more just riding to work and back, this year I will do it properly. I will ride with structure and purpose, using power and levels and all that science stuff that will guarantee me a return. I will no longer eat food, all fuelling and recovery will come in the form of rehydrated chalky or sugary powders, weighed out to the gram and ingested on plan each and every time. Forget the temple — my body will be a palace this year!

With power zones calculated, and the accurate-to-the-second training session taped to my stem, I'm out on the road, day one; let's do this. To start with it's Zone 1 for 20min, 85rpm. Damn, traffic lights, I'll start after these. Sorted, rolling along, all going to plan, when a couple of locals pass me on their

Zipp 404s. It's January 3, wet, and 2°C — welcome to East London. I decline to give chase as it will take me out of the zone, but then I hit stationary traffic and it all goes to pot. First I lose my cadence, then the power drops, followed by heart rate, and the three warning alarms I have set up all start to beep at once.

I'm not going to complete the correct warm-up. I weave and wind through the cars to ensure I don't stop because in 34 seconds' time I need to put in a 45-second burst at level four and if that van doesn't move I'll be riding straight into the back of it. The van pulls away, and I nail it, while counting to 45 in my head.

Damn, a corner! Brake, turn, back up to speed. Does that count as a proper effort because I had to back off to take the corner? I'll do another one just in case. But if I do, that will throw the whole session out of alignment... arrghhhhh!

Every single aspect of the immaculately conceived six-month schedule must be adhered to or I

will not hit my target. Best not think of it, but even though I do my best to complete the workout my mind knows it wasn't correct and will not stop telling me it was a waste of time. The next day I will get it right though, I have to.

But wait, what's this? I have to do the school run tomorrow and in the evening my wife is going out? But my plan calls for 3,600 seconds at level 3 with 42 hill reps in the 53x13 with a 25kg backpack on. Another day ruined.

Balls to it. Day two and I've had enough with the suffocating constraints of this perfect plan, I quit, I was never going to be a winner anyway. Looks like I'm back to commuting and smashing some KOMs at the weekend, still if it ain't broke...

What about the turbo I hear you say? You can ride these well-constructed sessions on the turbo, no problem. Mention the turbo again, I dare you. I double dare you...

Time for a slice of Garmin-infused humble pie



You can contact Simon on Twitter @100climbs

NEXT MONTH Simon compares joining a cycling club to learning a whole new language.

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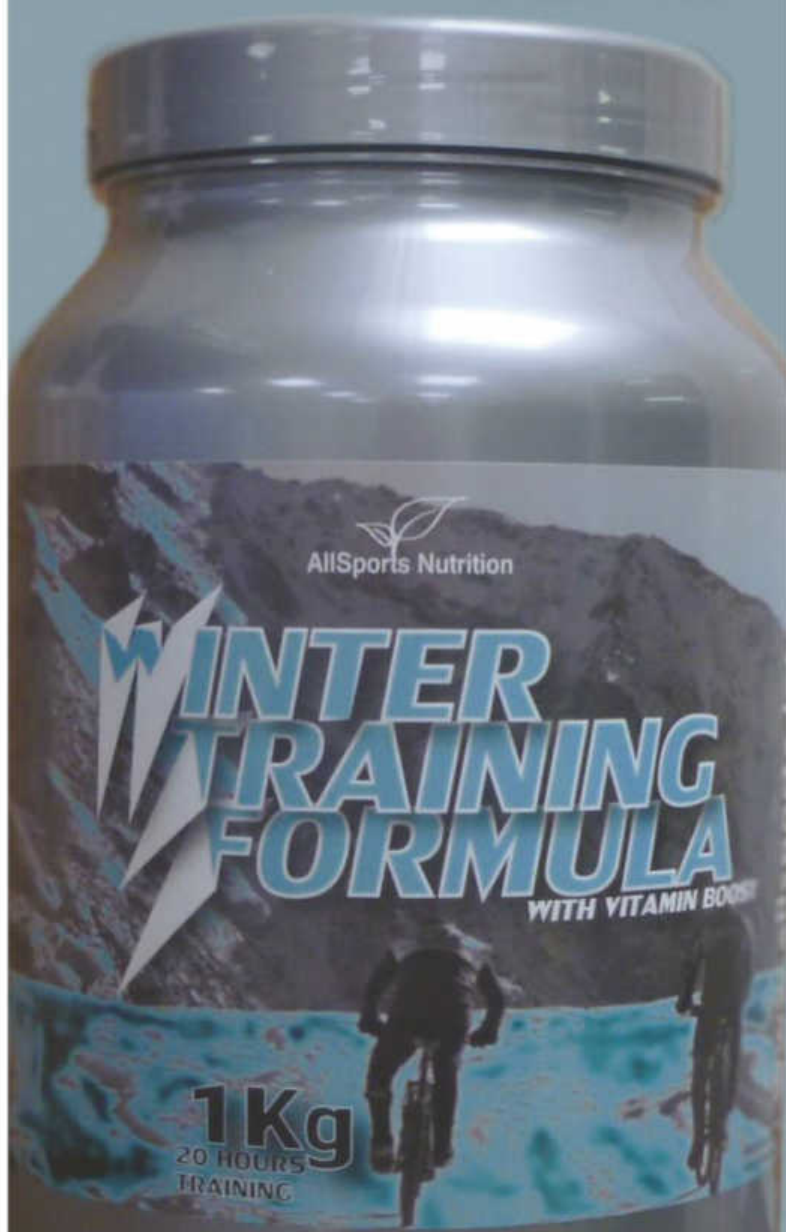
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“It felt like I’d been caught planning a dirty weekend, rather than a bike ride”



An impromptu business trip to Nice has Brett Lewis sneaking his cycling kit into his overnight bag in search of the Holy Grail of amateur cycling: that first Alpine summit

“Something to aim at!” So said Tom Simpson when he placed a deposit on a new Mercedes without the fiscal ability to buy it. But if he could win that year’s Tour, he could easily afford that new car. While my target wasn’t as cool as Simpson’s Merc, it was probably just as big a leap of faith against reality. I wanted to climb my first col.

I’d reached the point where I just didn’t feel like a proper cyclist until I’d ridden a mountain or navigated a few switchbacks and gazed up at a climb that went up into the heavens. It seemed a crazy pipe dream as I had no plans to go to France and I was still struggling on my local hills! The climb from Bédoin to Mont Ventoux was an obvious choice or the shorter Alpe d’Huez might be preferable, but it was all conjecture until a sudden opportunity arose and I grabbed it without a thought.

A two-day work trip to Nice at the end of December gave me the opportunity. A Strava search confirmed that I could ride from Nice and up the Col de la Madone and loop back to Nice in around three hours.

Minutes later I’d googled Café du Cycliste in Nice, hired a bike and my plan was hatched — my first col ride was going to happen.

The whole thing nearly fell apart when my wife caught me packing my cycling kit: “What’s this then? You said you were on a business trip!” I hadn’t mentioned my plans and suddenly I felt like I’d been caught planning a dirty weekend, rather than a gruelling bike ride.

Having got past that obstacle, doubts started to mingle in with the excitement. Did I have the mental focus to climb this in one go? Would my Garmin let me down the way a Garmin does? Would I forget which side of the road to ride? Of course, my biggest worry was would I nail this 42-mile ride in three hours and still catch my flight home?

A week later I’m in out-of-season Menton at the foot of the climb. I’m also feeling a bit out-of-season as I’d ridden from Nice through Monaco where a group of Astana and Movistar riders breezed past me. I’m reminded that this

is also home to the out-of-season professional peloton.

There are a few ways up this col but I’ve chosen the direct one, which starts from the sea. Within a kilometre I’m regretting it as it’s a very steep kick and I’m already digging in hard. Inexplicably, I can’t get Pink Floyd’s ‘Wish You Were Here’ out of my mind and as I climb it becomes the rhythm of my cadence — slow and steady. It’s the perfect pace for my ride — there’s something magical and foreboding about a road that’s been carved out of the solid rock.

Switchback bends zigzag upwards, peaks disappear into the clouds and an amazing view of the valley opens up way down below.

There is a sweet lemon and pine smell from the trees that hangs in the air and the only sound is the ‘zzt, zzt’ from the rented Di2 Colnago, as I finally relent and hit that last cog I’d saved for the steepest sections. I climb past the pretty Sainte Agnès and for the first time the road ahead appears as a straight line... but straight up! It’s time to dig deeper. The road narrows and I enter one of the three tunnels. To fight the jarring temperature change I start singing out loud that Floyd song between gasps for air: “So you think... so you think you can tell... heaven from hell.” It’s an apt song for this beautiful place. My legs are gone and the gradient is steep, it’s cycling heaven and I can see the summit — I’ve made it.

The descent was the reward for my toil: fast, furious and sometimes defying the speed limit. It seemed like minutes later I was back in Nice, handing the bike back and heading for the flight home. It was all over. I’d done it and I hadn’t let myself or my ego

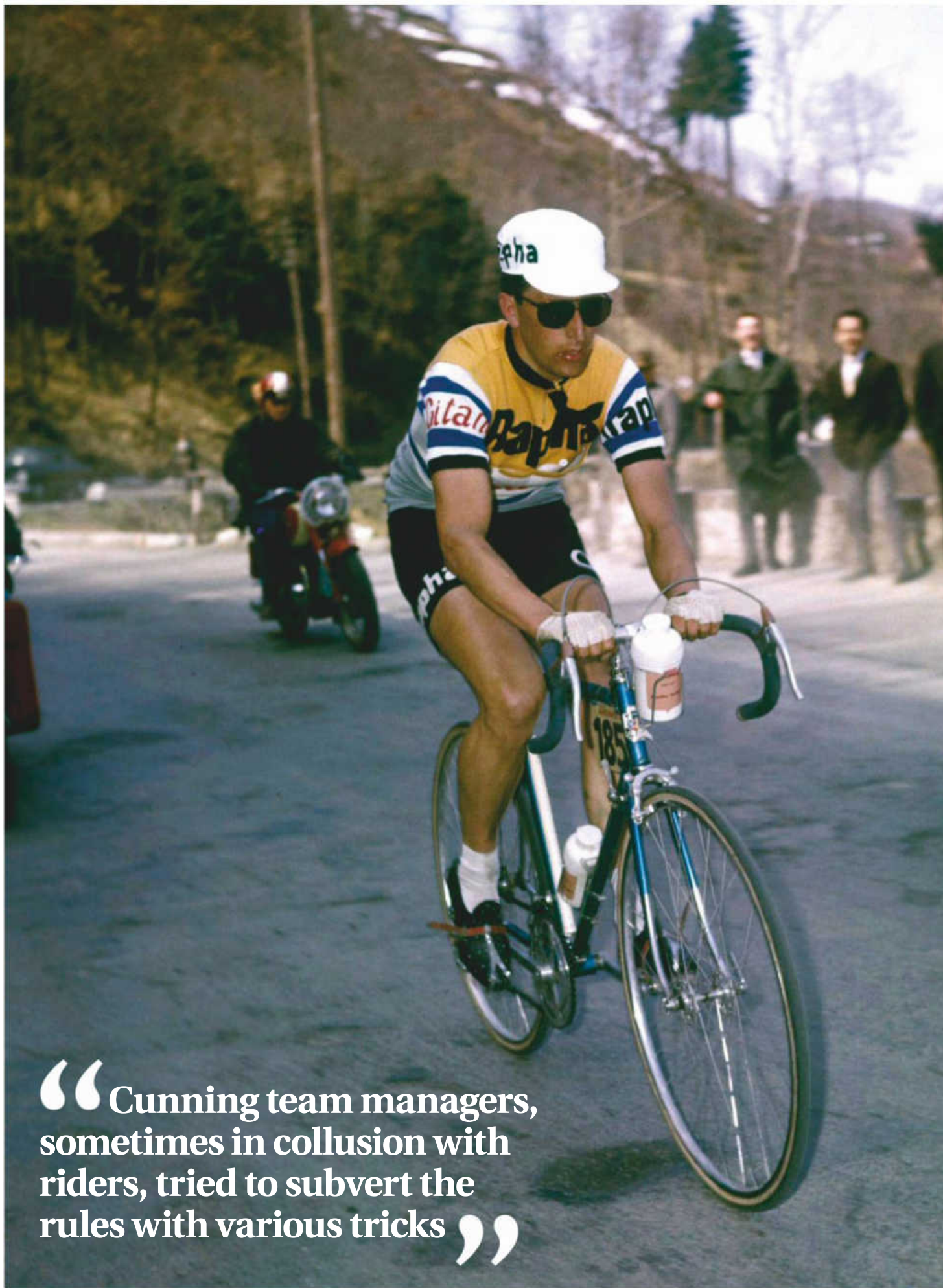
down. I was pretty chuffed. How was my Strava time for the climb compared to that Texan-who-shall-not-be-named? Let’s just say I’m not going to win anything this year, I’ve just proved it.

You just never know when a great riding opportunity may occur, and just as Tom once said, it’s “something to aim at”. You never know when you’ll achieve it and then it’s time to set another. If you get the chance, take it, but remember to tell your partner — they might think you’re up to something else entirely...

Picture postcard
views reward
the slog



NEXT MONTH: Love my shoes, hate my cleats.



“Cunning team managers, sometimes in collusion with riders, tried to subvert the rules with various tricks”



This is Tom Simpson, alone in the lead climbing the Turchino Pass, in his first attempt at the great Italian Classic race, Milan-San Remo. Simpson is just 22 years old. He turned pro at the end of the previous season, making a sensational debut when he finished fourth in the elite World Championships road race. He would win the Worlds in 1965, and this race in 1964 along with many others, but this story isn't about Simpson, it's about his jersey.

This is the original Rapha, the jersey of the Rapha-Gitane team of 1960, from which the present day cycling clothing company Rapha takes its name. The original Rapha name came about at a time when teams were arguing with the cycling authorities about who could sponsor teams, and the trickery some managers used to get around the rules.

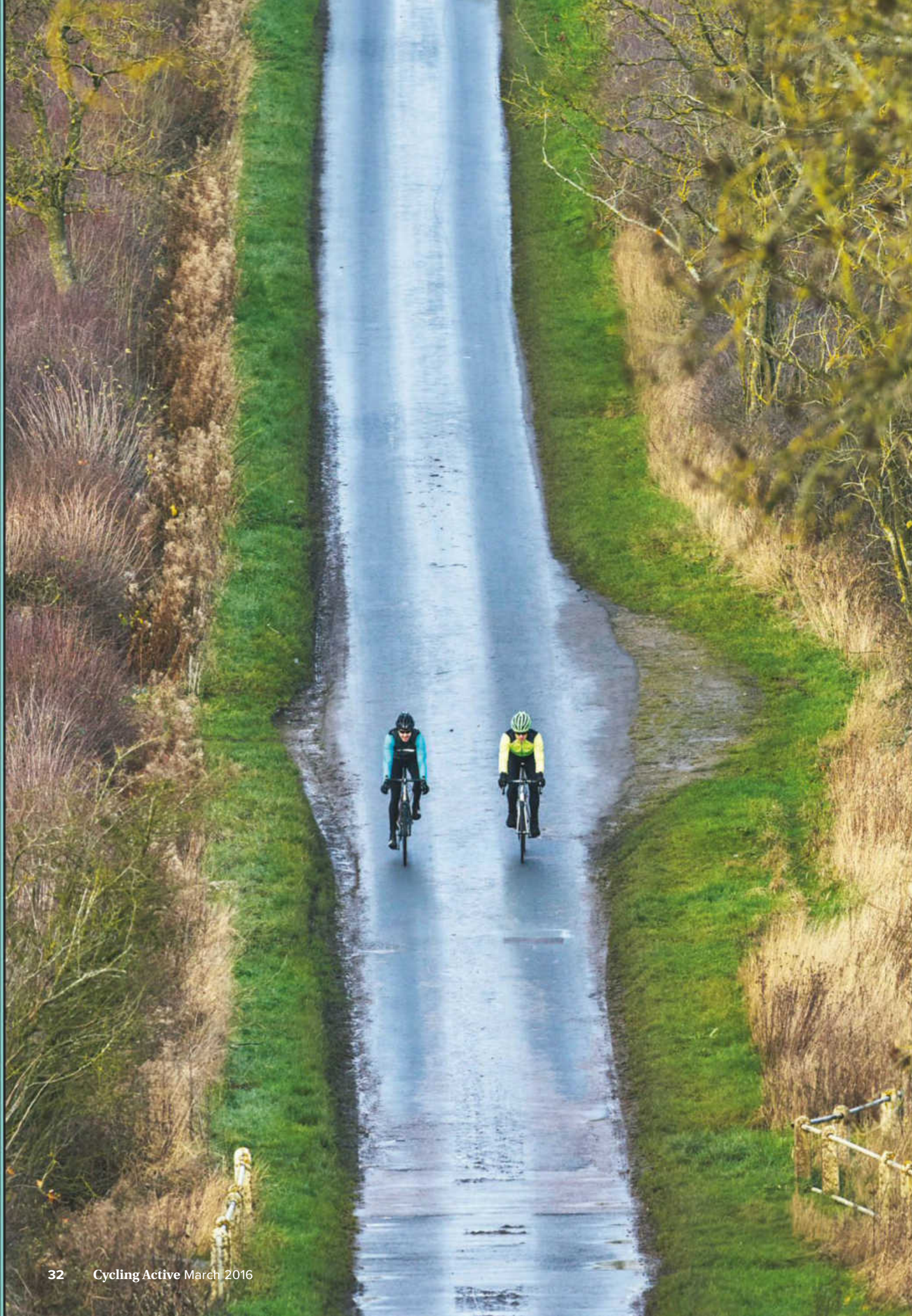
Up until the end of the 1950s, professional cycling teams were sponsored by the cycle trade. Teams would have a bike manufacturer as the headline sponsor, a tyre or equipment manufacturer as the second sponsor, and as time went on sponsors from outside the sport, called extra-sportif sponsors in the French language of cycling, were allowed as third names on a team jersey. So you had teams such as Peugeot-Dunlop-BP.

But cycling had steadily grown in popularity, with top riders commanding more and more money from team sponsors, while at the same time bike manufacturers were suffering from a recession. People were buying cars and motorbikes, and were less dependent on bikes for transport.

It became harder for bike manufacturers to afford to sponsor pro teams, but the extra-sportif sponsors had the cash and they wanted the publicity cycling would give them. So cunning team managers, sometimes in collusion with riders, tried to subvert the rules with various tricks. For example, when the aperitif company St Raphael became the headline sponsor of a team, one of its senior riders, Raphael Geminiani, claimed the name was his, and the team was called St-Raphael-Geminiani-Dunlop. Geminiani did have his own bike brand that the team rode, so the story held water. Well, it did for long enough to get the rules changed and allow the extra-sportif sponsors to take over teams.

The Rapha-Gitane team was another attempt to subvert the rules. Rapha was a conveniently shortened version of St Raphael, so was really the same drinks company, but to the cycling authorities they looked like two different teams. This was to get around another rule that limited the interests a headline sponsor could have to one team. And that was how the name Rapha was born.

Written and compiled by Chris Sidwells





There are few better rides to kickstart your sportive season than this route around Rutland and Leicestershire, peppered with short, sharp climbs and punctuated with pretty villages

The choice is simple: stare at the inside of the garage door and curse the brutal taskmasters from Sufferfest above the roar of a turbo-trainer; or face the cold, wet and grime of a winter ride. As I perch on the boot sill of my car, attempting to tug on overshoes, I realise that it's not so much winter riding that nudges me towards the turbo, but the palaver of getting ready for it. Once the pedals are turning and the wheels spinning, I'm happy to stay in the saddle all day. But assembling all the kit, recharging the lights, and above all the filthy roads that mean my bike finishes each ride looking like a barnacle-encrusted hull in a dry dock means it takes a special type of motivation to head out.

Yet every spring for as long as I can remember, I regret not riding more through the dark months. The turbo might train my heart and lungs, but when the clocks change I rue the lack of hills and headwind in my legs. It may be chilly, damp and dull outside, but it's still infinitely closer to what I love about cycling than pedalling below a 60-watt bulb as beads of sweat cascade onto my top tube.

In Monty Python's *Life of Brian*, John Cleese's character Reg asks the rhetorical question "What have the Romans ever done for us?" only for his revolutionary group to start supplying answers; 'roads', 'sanitation', 'aqueduct', 'medicine', 'education', 'wine', 'public order'.

It's tempting to ask what winter riding has ever done for us, but already the answers are flooding into my cerebral cortex... the endorphins of fresh air and exercise, the mental and physical stimulation, the honing of handling skills and hopefully the development of a flinty-eyed toughness.

So this winter I'm riding through the murk and the muck, determined to be match fit by the time the daffodils have wilted. Thankfully, my riding buddy Oli shares a similar commitment, eager to be race-ready by Easter.

Riding around Rutland

Today's route provides a perfect measure of these fitness ambitions. It follows the course of the Rutland CICLE Sportive, an event on my doorstep that has repeatedly caught me out at the start of the season. Somehow, the hills always feel steeper and the riding more difficult than I remember, to such an extent that the second half of the course becomes one long reflection on how I ought to have

ridden more between December and March. Not this year though.

Ahead lies a century of miles in a north-south circuit that will take us up to Belvoir Castle in Leicestershire and down almost as far as Corby in Northamptonshire. Between lies a corrugated landscape, several short, sharp hills in quick succession, none significantly longer or steeper than its neighbour to make a name for itself as a standalone challenge. As a rippled relay, however, they're formidable obstacles.

Poetry in lotion

"I rubbed mine in baby oil this morning," says Oli.

I give my tyres a couple more blasts with the track pump before his statement sinks in. Long, hard miles are notorious for teasing out the deepest secrets from brothers in arms, but this is before sunrise, prior to the first revolution of cranks.

I glance across the car park to check I've not interrupted an intimate daydream, but he's wide awake and fettling his brand new bike.

"Baby oil... it's the best thing for protecting a titanium frame," he explains. I've heard of wiping tyres with vinegar to combat punctures (apparently it reduces the stickiness of natural rubber that picks up grit and flints), but this is new to me. I've always thought a pink-capped bottle of Johnson's Baby Oil in a bike shed was more wink, wink, nudge, nudge than frame protection.

Lubed-up or not, there's only so much mechanical tinkering it's possible to do before it's time to ride, so overshoes stretched into place and gloves pulled tight we roll away from Rutland Water towards Wing (and a prayer). We've chosen this as the best day of a fortnight, having scrutinised the long-range forecast, and thankfully the Met men have been spot on, with a clear sky and modest breeze. With or without baby oil and Gore-Tex I don't fancy riding 100-plus miles while animals pair up two-by-two.

Conditions are so good that we're even wearing dark lenses in our glasses, although the sun displays the same lacklustre effort to reach its zenith as a lanterne rouge rider shows for getting into a break. Low and wan it may be, but it still has the power to bamboozle our brains. Dulled by

THE RIDERS

Jonathan Manning

A freelance writer and mustard keen cyclist, Jonathan's palmares includes the Fred Whitton, Etape du Tour, the Haute Route, the Tour of the Battenkills and Omloop Het Nieuwsblad. Living in Lincolnshire, his riding challenges involve a constant search for contours.



Oliver Laverack

Oli is a third-cat racer with a string of epic endurance rides under his belt, including the full routes of Paris-Roubaix and the Tour of Flanders back-to-back in the same weekend. He also designs his own range of J.Laverack bikes.



"Overshoes and gloves pulled tight, we roll away from Rutland Water"



The ride soon warms
legs and lungs. And
tongues, apparently



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Descents are cold,
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“A brace of early ascents changes my own complexion from glacial to pink-cheeked and the ride is on”

a string of grey days, suddenly the countryside looks gorgeous, a sparkling array of greens and russet browns. High on UV-rays and an overdose of vitamin D, my retinas revel in an imaginary kaleidoscope of colours. It's only when I peer into the back of the photographer's camera that the truth emerges of a palette of khaki smudges, from dirty yellow to muddy brown.

A brace of early ascents changes my own complexion from glacial to pink-cheeked, and the ride is on. By the time we've climbed from Braunston to Cold Overton I'm loosening the zips on my jersey to spill some heat. The roads are narrow and blissfully quiet, albeit layered in mud — an open mouth risks a tyre spray of muck at any moment. We skirt Rutland's county town of Oakham, pass the former open prison at Ashwell, transformed into an enterprise park, and start the journey north, linking villages with names straight from the Domesday Book: Thistleton, Buckminster, Saltby, Croxton Kerrial. It's rural and peaceful,

pheasants and partridge scurry into hedgerows, a red kite and buzzard scavenge for roadkill on a limp thermal, and parishes cluster around their village churches and pubs. A good few of the cottages still wear the livery of the local landowner. Crossing the A607 briefly shatters the calm before we're back on a whisper-quiet lane.

Glancing over treetops on the approach to Knipton, the towers and turrets of Belvoir Castle gleam in the low-lying sun. The view from the battlements must take in half of Leicestershire. Knipton itself is straight from central casting's stereotype of an English village, complete with war memorial, old water pump, and post office-cum-general store. For cyclists, it marks the start of a popular Strava climb whose four per cent average gradient over 1.3km masks shorter out-of-the-saddle stretches. The gravity-defying effort is immediately rewarded with a delicious downward slope through bare, broadleaf woodland, carpeted by copper-coloured leaves.

Belvoir's fairytale castle is obscured by forest as we pedal past its gatehouse, but our eyes are already focused on the exhilaratingly fast descent into the Vale of Belvoir. The road is needle straight so speed is simply a matter of aerodynamics, ballast and bravado; my Garmin clocks over 30mph. As with the small print of a financial services advertisement, however, what goes down can also go up, and two right-angle turns have us heading back towards the foot of





Sunshine and long,
quiet roads bring a
little winter cheer

the same ridgeline. "I spy with my little eye," I shout over the headwind, "Something beginning with 'H' and ending in 'ill'."

It turns out to be a prophetic statement, festive excesses catching up with me as we gain 100 metres in a kilometre, the granny-ring gradient peaking at over 18 per cent. In the early yards of the climb a cheery shooting party raise pewter glasses to our progress. It's tempting to ask for a slug of sloe gin to keep the chill at bay, but stop on this ascent and there's no chance of restarting without going back down to the bottom, so I stand on the pedals and grind the cranks as the road twists skywards. This is supposed to be a social ride, but Oli and I are too competitive to let it pass without an unspoken race to the top, both adopting our best poker faces in an attempt to disguise just how hard we're trying. Modesty prevents me from revealing that on this occasion I hit the summit first.

We're high on a ridge now, exposed to an unforgiving headwind. Stopping for a comfort break I watch my long shadow stretch far across the hillside; with judicious use of my mini-pump I could recreate a silhouette of the Cerne Abbas giant (Google him if you're unfamiliar with the towering chalk figure — the second thing you'll notice is the club he's wielding above his head).

Pressing on, the road from Harby to Waltham on the Wolds has a cinematic feel, sunlight bouncing off the silvery tarmac as it heads arrow straight for the horizon. It's the type of road down which the hero slowly disappears from view at the end of a movie while the credits roll, but we've barely reached halfway. At least refreshments lie ahead.

Quintessentially British

It would have been amusing to be a fly on the wall when the owners of the Wymondham Windmill Tea Rooms made their business pitch to the bank. "So you want to open a cafe that stands alone on the top of a steep hill beyond a small village. Who do you think your customers are going to be?"

The answer for a good proportion of the day, and for much of every weekend, is cyclists. Club ride after club ride calls in, fleets of bikes and riders eager to replenish burnt calories. The location is great, the coffee and cakes better, and there's even a photograph on the wall of Mary Berry and Paul Hollywood pictured here while filming a pilot television show about Great British tearooms. The portrait is surely the modern day equivalent of a 'By Appointment to...' royal warrant. I devour a scone while Oli tucks into turkey and vegetable soup — it's that time of year.

Conscious that our daylight hours are



"It's the type of road down which the hero slowly disappears as the credits roll"



Just a few miles from the flatlands of the Fens, the terrain around Rutland is decidedly lumpy



The guys pray for fresh legs as they approach Launde Abbey

limited, we don't linger long, and we're soon back in the saddle and heading south, a road sign marking the border between Leicestershire and Rutland. We clatter over the little railway crossing at Whissendine, and follow a road so quiet that a Mohican of grass peeks through its central ridge. It's not long though before the route starts to dig in

its spurs, pitching and falling in swift succession. In the heady, dry days of summer it's possible to carry downhill momentum most of the way up the following slope, but on surfaces glazed with mud and slurry we play it safe and temper our descending. Rounding a tight corner Oli is forced by an oncoming car to grab a handful of brake, his discs hauling him to standstill with impressive power and just the merest hint of a skid. His staggeringly beautiful J.Laverack JACK bike, I notice, is now plastered in road crud.

"It'll all wash off," he tells me, "So long as the baby oil does its job."

THE BIKE

My Cervélo R3 has just celebrated its third birthday, which means I'm now bold enough to take it out in all conditions. The frame is magnificent for marrying speed with exceptional comfort, thanks to a huge bottom bracket, chunky chainstays and pencil-thin seatstays, and it climbs beautifully. I wish it had the internal cable routing of the new R3, and while I love the accuracy and smoothness of the Ultegra Di2 groupset, I still shudder at the ugliness of the battery on the down tube, a carbuncle on such a pretty frame. When finances allow I'll upgrade to the latest model in a flash.



In the tracks of professionals

As we reach Owston I'm struck by a case of déjà vu. This is the plum spot for watching the Rutland-Melton CiCLE Classic, a professional race that takes place the day after the Rutland Sportive. It's a mix of hard riding, dubious weather and spells on treacherous farm tracks, this area's equivalent of Belgium's cobbled roads. Stand in Owston and the peloton will flash by three times, thinner and more stretched at every passing. I spy the kerb from which I watched last year's event, but the temperature is falling and the sun has already passed its peak, so we push on, rising and falling with a savage set of repeated contours until we plunge into the grounds of Launde Abbey.

It's an attractive estate, complete with free ranging sheep and cattle, a pond and the handsome house that's now a religious retreat. It also hosts a monthly pudding club, which involves a light main course



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followed by half a dozen desserts — a nutritional approach that would send Team Sky's broccoli brigade into palpitations. I check the calorie calculator on my Garmin then attempt some rough and ready mental arithmetic to work out how far I would have to ride to burn off an evening's over-indulgence. The answer seems to be to the moon and back.

Undeterred, I suggest to Oli that next time we should coincide this ride with a pudding club evening, and start and finish at the Abbey.

He nods eagerly, but as we struggle up the short, vicious climb out of the Launde estate, losing traction if we stand out of the saddle and pulling wheelies if we sit down, Oli suddenly finds himself

verging on the bonk. Maybe it's the cold, the mileage, or a combination of the two, but it takes a couple of cereal bars followed by a gel and a banana to lift both his spirits and blood sugar levels before we plough on to Bloston, which I so want to be twinned with a town called Blastoff. The views beyond towards Medbourne are out of this world, a lattice of hedges hemming fields that roll to the distant horizon.

We hit the drops, fire the chain to the little sprocket and gun it for a delirious descent. At which point everything all goes a little pear-shaped. If there's one thing worse than cocking up the navigation and forcing your riding buddy to head back up the hill he's just



Harringworth Viaduct provides a dramatic backdrop for the final push home



And all was quiet save for the sound of breathy men and nervous sheep

hurtled down, it's realising that you were right all along. At least we get to revel in the rollercoaster downhill again.

And there's more good news as the route loops around the locally famous Nevill Holt hill climb to join the shore of Eyebrook Reservoir where the water shimmers like mercury.

The GPS reveals we've now clocked up 93 miles, just 10 to go, but there's more than one sting in the tail of this ride. The first is the toughest, a punishing climb up through Stoke Dry, rewarded

with a hair-raising descent. We play chicken, daring the other not to touch the brakes, until I bottle it and scrub off some speed. The road delivers us into Lyddington, an achingly pretty village built from stone as honeyed as anywhere in the Cotswolds. The village pub boasts petanque pistes for warm afternoons and long summer evenings that seem almost unimaginable at this time of year.

Seemingly insurmountable

We're on the finishing straight now, the brightness of car headlamps alerting us to the fading light. In the dimness our pupils have dilated wider than those of a teenage boy with an Ann Summers catalogue, but there's now a degree of urgency to get back to our cars.

This means we pay little attention to the magnificent Harringworth Viaduct as we race below one of its 82 giant arches. It's a phenomenal piece of architectural engineering, and it's only later as I'm soaking in a hot bath that I reflect on its power as an inspiration for cycling. There must have been times during its construction when the workers looked at the distance they had to span and the tools at their disposal (muscle and elbow grease) and wondered if they would ever reach the finish. I've felt the same on many a ride, yet somehow the end eventually arrives. I bet they were fit by the spring too!

KNOW THIS

Getting there

Start and finish on the south shore of Rutland Water, near the A1 at Stamford. There's also train station at Stamford, linking to Peterborough and Birmingham.

Staying there

The Best Western Normanton Park Hotel on the shore of Rutland Water is just a short walk from the start / finish of the ride (www.bestwestern.co.uk). Barnsdale Hall Hotel on the north of the reservoir has a spa and double rooms cost from £115 (www.barnsdalehotel.co.uk).

Kit

Check the forecast and bring a variety of kit — previous years have demanded everything from short sleeves and bibshorts to full-on winter waterproofs.

Bike

The repeated sharp climbs and 5,000-plus feet of ascent make a compact chainset a wise choice.

Bike shop

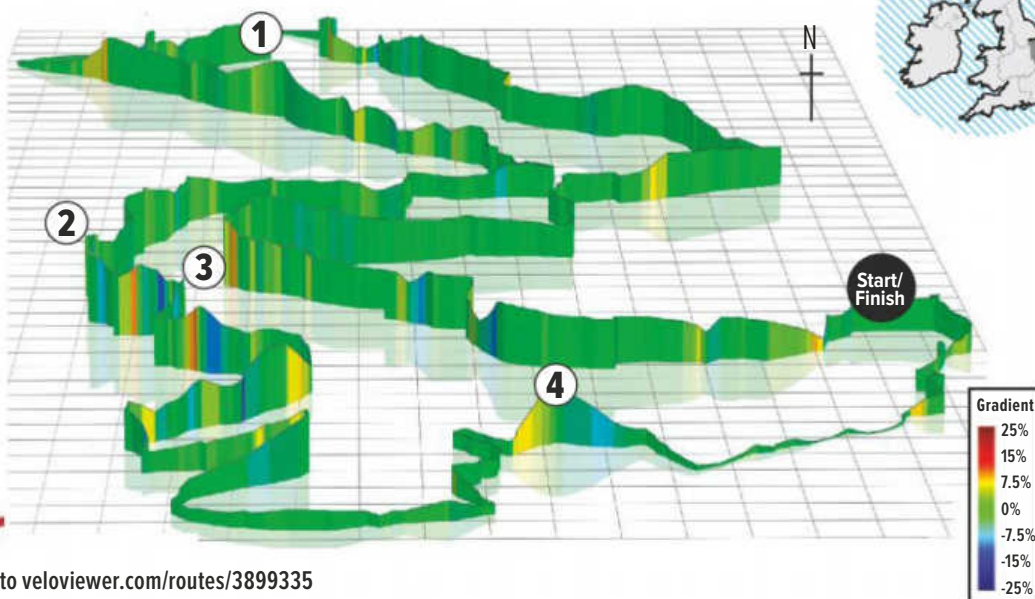
Rutland Cycling, Whitwell Leisure Park, Bull Brig Lane, Whitwell, Rutland LE15 8BL — for bikes, spares, repair and hire.

THE ROUTE & KEY CLIMBS

There's plenty of space at the Normanton car park at Rutland Water, although you'll have to pay (£4 for the day). The huge Giant store on site is also the start point for its own 'any time' sportive, the Giant 365 Sportive, that follows many of the same roads as this event — you can hire a timing chip from the store (www.giant-rutland.co.uk).

veloviewer

For a Veloviewer link go to veloviewer.com/routes/3899335



CLIMBS

1 Wood Lane, Belvoir

The sprint up Terrace Hill may only be 500m long, but with an average gradient of 11 per cent it's a fast blast to raise your pulse on an out-of-the-saddle charge.

2 Harby Hill, Leicestershire

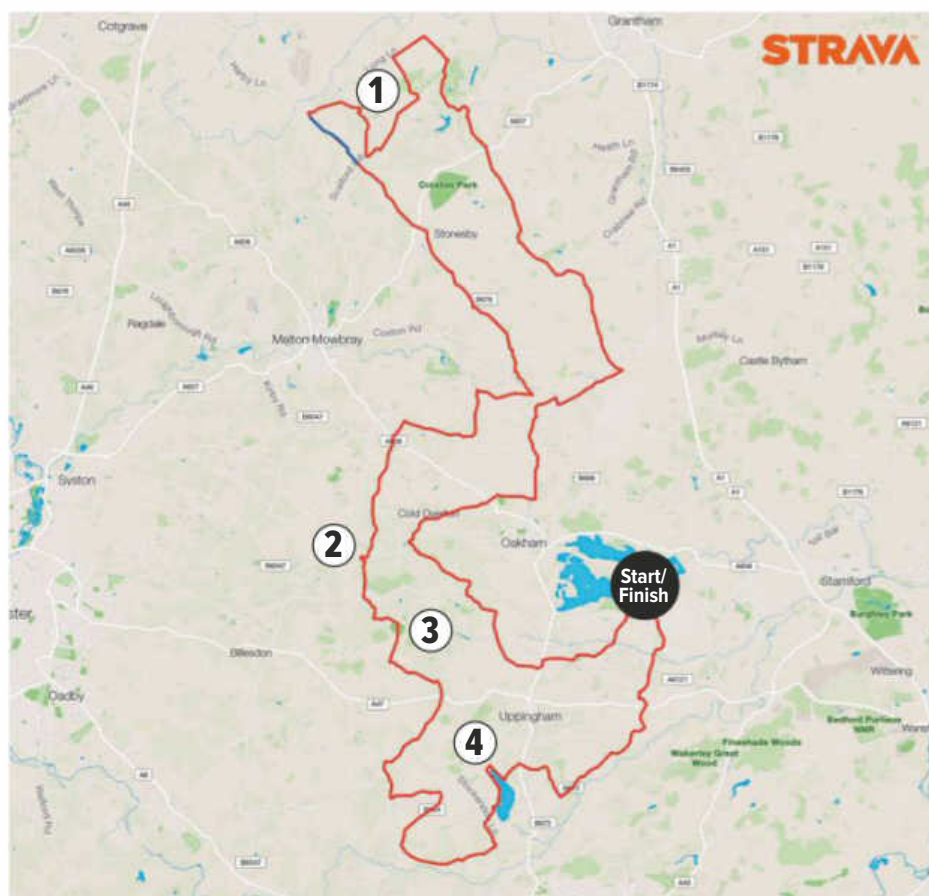
A little longer than many of the climbs on this ride, Harby Hill sneaks a spell of 14 per cent gradient into its length as it heads skywards for 1.2km at an average of six per cent.

3 Launde Abbey, Leicestershire

Why so much fuss over a 200m long ramp? Because it's an absolute pig of a climb! The average 11 per cent incline masks sections that will have your rear wheel spinning if you stand out of the saddle, or pulling a wheelie if you stay seated.

4 Stoke Dry, Rutland

This 1.2km uphill charge at the end of the sportive will sap whatever energy remains in your legs as you gain 73m in altitude at an average six per cent.



Map data ©2015 Google



[Route map and profile is available at www.cicleclassic.co.uk]



Destination

MAJORCA

PUERTO POLLENCA

Smiles, suntans and sensational cycling can
all be found amid the Majorcan mountains...
and you might even meet your heroes





Roll up to Grand Café 1919 on the waterfront in Majorca's Puerto Pollenca and the chances are that it won't be long before you spot a familiar face from the cycling world.

This promenade favourite serves a great flat white and it would seem that Team Sky agrees, as do most of the British cycling clubs who flock to the port each year seeking warmer climes to train in.

Majorca, and in particular, Pollenca has become a real home from home for UK cyclists.

I've been heading out to the area each year for the best part of a decade and I still feel like a relative newcomer compared to the many riders who have regularly visited the island for even longer.

It's a cliché to say it's a holiday destination you'll never want to leave but in my experience Majorca is a location that cyclists tend to visit and want to religiously return to for every bike break.

A couple of years ago I questioned that decision and packed up my bike to give Fuerteventura a go. Don't get me wrong; it was idyllic, breathtaking in fact, with uninterrupted sunshine. But I can see why it's known as 'the windy island.' A windsurfer's haven but a cyclist's hellish headwind for the hour-long climb out of the south coast resort each day. I came back significantly fitter, that's for sure.

Then I tried Tenerife, which I'd sum up, along with most people who ride out there, as one big hill. You'll spend all of your days going up and down Mount Teide, which summits at 12,198ft. It's brilliant training, as proven by the calibre of the riders I passed while climbing it — Alberto Contador and then later Chris Froome. Let me clarify, they were going in the opposite direction.

Then there's Lanzarote, which I actually thought was spectacular. Windy, yes. But in a group we clocked up the miles and the climbs were incredible for both scenery and endurance. In my experience the biggest problem with any of these all-year-round sunshine islands is that you have to be ready for some pretty tough and focused training. And if you're heading out with a mix of ability or looking for still, flat days, it's even more of a challenge.

By contrast, Majorca may not offer sweltering heat in February but it tends to be a lot more pleasant than the UK, particularly from March to June, the typical training camp times for most of our pre-season

getaways. At worst you'll be in leg-warmers and a rain cape; at best unzipping a summer jersey under the midday heat.

The plus side is the varied terrain: endless stretches of smooth, flat roads for recovery days or clocking up the miles, and mountainous options to prepare for big events. It's got it all. To my mind it's this versatility that edges it ahead of the Canaries.

Time of year

It's always been common to see a flurry of tweets boasting ripped, tanned legs and envy-evoking pics snapped in the Balearic island during early spring but now we're seeing more riders take advantage of the hotspot in less likely times of the year.

With some airlines serving Majorca all year round, an increasing number of us are going out there in all seasons and loving it.

I paid a visit in December and was pleasantly surprised to be in summer kit all week. It was baking, possibly nicer than the week I'd spent there in the spring. Don't get me wrong, it was pretty quiet, but I think it's only a matter of time before more riders take advantage of this winter getaway. There were a surprising number of great cafes open so although we headed out self-sufficient with packed pockets we were able to stop at all the usual haunts.

However, my favourite bar and restaurant, and most renowned cyclists' favourite on the island, Tolo's, had closed for the month, and wasn't due to reopen until the New Year. The rest of the time this seafront hotspot is buzzing with cyclists night and day, serving a rather generous gin and tonic for those embarking on a rest day the following morning, not to mention a great post-ride carb-fest with superb pizza and pasta.

THE RIDER

Rebecca Charlton
Rebecca Charlton is *Cycling Active's* deputy



editor and likes to escape to Majorca at least once or twice a year. She's raced bikes for over 20 years and picks this as her favourite training getaway.







Ocean ride: pedalling back from the Lighthouse

Tolo and many members of his staff are former racing cyclists and often welcome Sir Bradley Wiggins during his Majorcan training stints.

Froome favourite

It's not only Sir Bradley who frequents the island. Team Sky were out in Majorca for their annual January team camp when we went to print and *Cycling Active* caught up with Chris Froome to find out why the pros favour the roads there so much.

At the start of the year teams are usually welcoming new riders and a camp is not only important for specific training but for the new roster to gel.

"It's something I look forward to, being back with the guys. There are some new guys on the team, it's exciting, and how can you not look forward to rooming with Wout Poels?" laughs Froome.

But aside from the team bonding, why does the team choose Majorca? "Majorca has been good to us the last few years, we've got climbs, we've got flats, we've got crosswinds. It's a low-key way to train but also you get some really good work done."

It's a valuable time to all be together and to work on team dynamics out on the road, as well as off the bike: "With the new guys, you go out on the five- or six-hour rides and you're pushed to the limit.

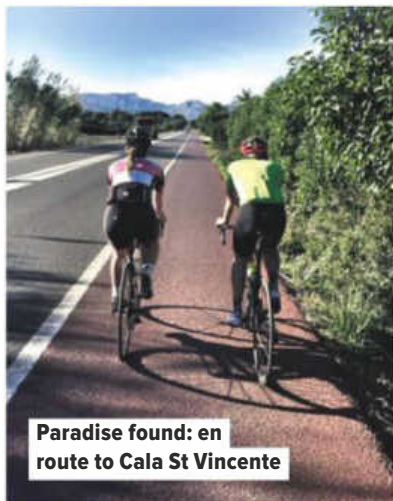
"If Majorca's good enough for Froomey and Team Sky, it's good enough for us!"

You begin to see little things that you wouldn't normally see when you're racing, from the guys' body language, you can see if his sugars are a bit low, and he's about to get grumpy," continues Froome.

We've been taking a look at the Strava times of the professional riders on some of the island's big climbs but as Froome points out, there's little point in comparing times when they're at a January training camp. "We're always doing different

exercises on different climbs, so I wouldn't be able to say that I'm going faster or slower on a climb. Physically I feel like I'm in a really good place. I've worked well through November and December. I took a few days off when my boy was born. Other than that it's been a really good uninterrupted winter."

Well, if it's good enough for Froomey, it's good enough for us.



Paradise found: en route to Cala St Vincente

'The petrol station climb'

On this trip in December I revisited some of the routes I've ridden over the years, one of which included

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Frame: 7005 triple butted

Fork: Carbon

Group: 4600 Tiagra with FSA Chainset

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SALE PRICE £449.99



MERLIN FF1 - 105 5800

Frame: 7005 triple butted

Fork: Carbon

Group: Shimano 105 5800 with FCRS500

Wheels: Fulcrum Racing 7

RRP £829.99

SALE PRICE £549.95



Mediterranean meditation:
climbing is good for the soul

KNOW THIS

Getting there:

To travel to Palma airport in Majorca from the UK you're looking at a maximum of 2.5hr in the air. Easyjet, British Airways, Jet2, Monarch and Ryanair serve Palma airport as well as a number of other flight operators. All UK airports offer flights out to Palma, although some are seasonal. Easyjet flights to Palma, departing from London Gatwick serve the island all year round.

Where to stay:

There's no shortage of great hotels in or near the port, but from personal experience, the following have been incredibly bike friendly, either allowing

bikes in rooms or a secure lock-up with no unauthorised access.

Duva Hotel

www.duva-pollensa.com

Iberostar Playa de Muro

www.iberostar.com/Playa-De-Muro

Pollenca Park

www.jet2holidays.com/balearics/majorca/puerto-pollensa/fergus-style-pollensa-park-and-spa

Mar Calma

www.marcalmahotel.com

Bike hire:

Although it's always nice to be on your own bike, it can be a right hassle to have the 'will it, or won't it arrive?' stress on

arrival. Plus packing it up is a bit of a faff too. Here are some options for bike hire with machines you'd be happy to ride day after day.

Pinarello Experience

Calle Temple Fielding 3 and 5
Puerto Pollenca
www.pinarelloexperience.com

Max Hürzeler

Various stations in and near to Puerto Pollenca
www.huerzeler.com/en/

Pro Cycle Hire

Carrer Corb Marí, 6, 07470
Puerto Pollenca, Majorca,
Balearic Islands, Spain
www.procyclehire.com

Events:

There are many camps and

events that take place on the island. If you fancy a big endurance challenge, the Mallorca 312 is an increasingly popular season target and a way to see the sights of the entire island. With 4,300m of climbing, and, as the name suggests a distance of 312km, it's a great way to maximise your time away in the sun. It's popular though, so you'll need to get in quick for 2017!
www.mallorca312.com

Camps:

David Le Grys runs two camps in Puerto Pollenca each year during April and May. For more information visit: www.legroscycling.com



the climb up from Selva towards the Lluc monastery, commonly referred to among cyclists, not quite so romantically, as the climb up to the Repsol garage. In my head there's a painted finish line at the summit of this switchback climb but I think it's more of a figment of my imagination as I always seem to be racing towards the cafe outside the petrol station. In fact there's a Strava segment named Col de Petrol Statione and over 20,000 people have recorded a time on it.

Climbing up from the Selva side, you're looking roughly at a six-kilometre climb that winds up and up with each turn, except for two beautiful respites, where you're treated to stunning views and a chance to appreciate the height you've gained.

What I love about this climb is that you can have a play whatever your ability and can really push yourself however hard you want to. I once hopped from group to group, my bounteous wheel-sucking attempts meeting varying levels of success and well-humoured comments in a range of different languages.

Everyone's always smiling by the time they cross the bridge at which point the petrol station,

“The Col de Petrol Statione, a Strava segment, has over 20,000 recorded times”

and swarms of paused cyclists come into sight.

It was the first time I ever rode this climb back in 2008 that I noticed some interesting cars descending in the opposite direction. On this occasion I was out with a group comprising riders that I think it's safe to say were all way fitter than me and so I was busy focusing on getting enough breath in not to fall over sideways, my concentration fully spent on following the wheel in front, counting each turn and praying for it to be the last. Hardly the best way to take in the view.

Finally, we made it to the top and not only was I craving an ice cold can of Coke but I wanted nothing more than to collapse in a heap on the floor. Don't let me put you off, the climb is nice and manageable, the gradient never too steep, averaging five per cent overall.



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What goes up... and then a merry meander back down ensues

However, gluing myself to the wheels of rather more elite cyclists than myself had upped the pressure.

So as I was busy gasping through my last few pedal strokes to the cafe I saw a crowd gathering around one of the petrol pumps. My ride mates were pointing like I was missing something. Then I see the fuss is over *Top Gear*'s Jeremy Clarkson who at the time was chatting to the Lycra-clad on-lookers asking why on earth anyone would choose to ride up that hill when they could drive. I nodded to them but the urge to flop into a chair was too tempting. To this day I'm relieved I didn't appear in the final edit of the *Top Gear Majorca* special in a sweaty heap.

Through full-gas wheel-sucking I'd managed around 20-something minutes. To put into context how distinctly (below) average that is, Olympic champion Joanna Rowsell completed the same 6km segment in 16 minutes, 40 seconds, while James McLaughlin did it in 12:57 for the current KoM.

Lap of the island

Talking of champions, one day last spring, I saw national 12-hour time trial champion, Jasmijn Muller head out of the hotel before breakfast, and as we were finishing a late dinner she rolled back in. I had to do a double take before she explained she'd ridden an entire lap of Majorca for training. Impressive. I think I'd be out there for days.

But for those who are inspired by that sort of endurance and want to tick it off the bucket list, there's the Majorca312, a long distance route

“It has everything: mountains, flat roads, good weather and patient, respectful motorists”

comprising a complete tour of the island, throwing in 4,300 metres of climbing and taking the average rider around 14 hours to complete.

Legro's training camp

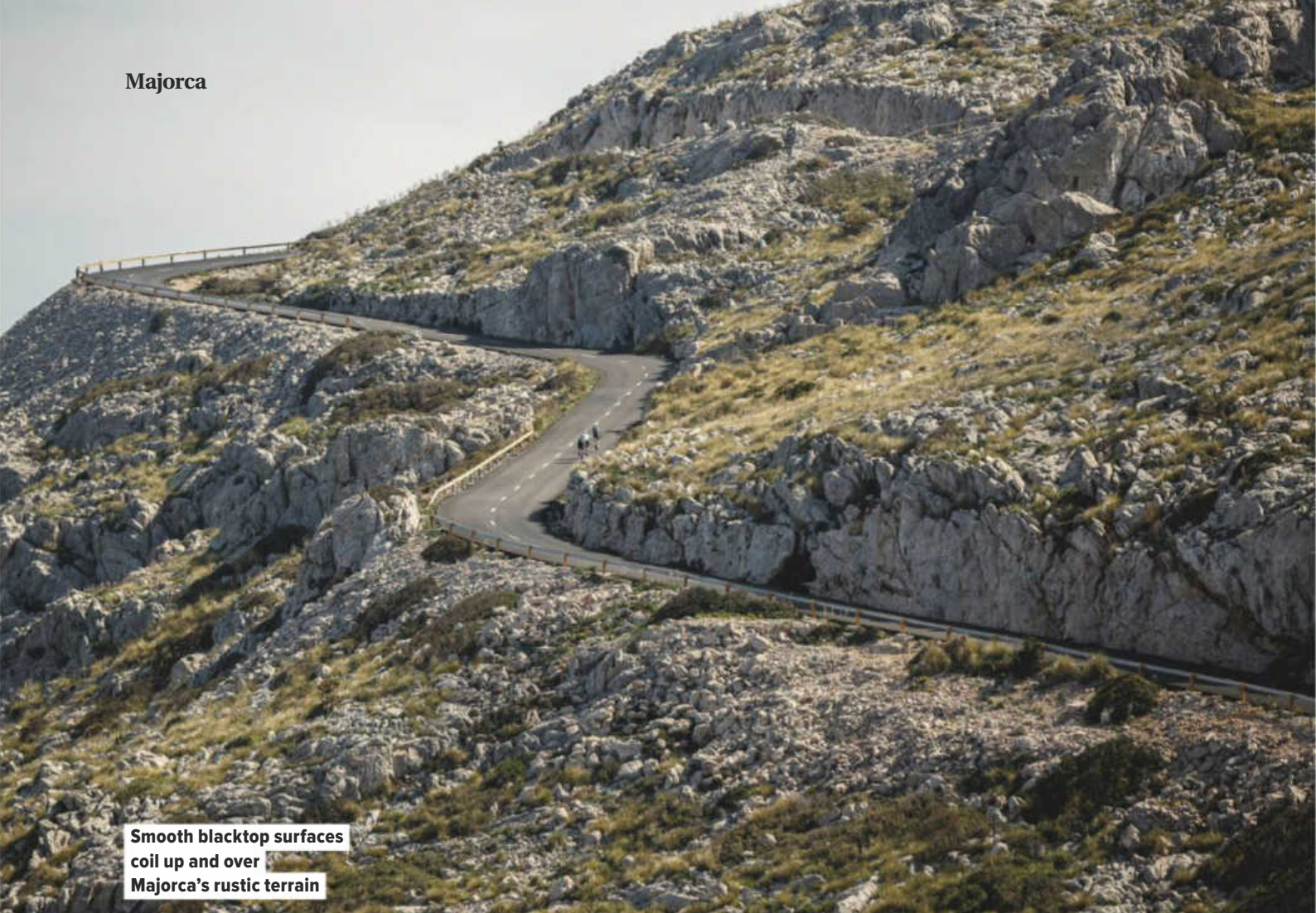
Former record holder and world champion David Le Grys has been running a training camp in Majorca for 27 years and has learned a thing or two about the island in that time. He sees more people flock to Pollença for Legro's Training Camp each spring, with the camp selling out fast.

He's stationed the camp in Puerto Pollença for almost three decades, so why this island? “It has everything. Mountains, rolling roads, flat roads and good weather but also respectful and patient motorists,” explains Le Grys.

There are other warm places to go but for Le Grys, this place has always edged ahead. “Most roads away from the main roads are very quiet — ideal, safe cycling roads. Also, Majorca has spent a lot of money maintaining and upgrading their roads. Plus there's the beautiful scenery.”

Froome may not have picked a favourite climb but Le Grys doesn't hesitate before answering, “Sa Calobra.”





**Smooth blacktop surfaces
coil up and over
Majorca's rustic terrain**



**Keep going!
Nearly there...**

"It has to be Sa Calobra," he continues. "The descent is breathtaking. It's got a good, smooth surface and the hairpin bends make for an exciting descent and that's before you turn round and ride back up again. The scenery and views are amazing."

You may wonder why Le Grys refers to turning straight around and climbing back up again. He's not just a glutton for punishment, there's only one way back up and that's the way you came down. It goes to show how loved this climb is that people revel in the challenge, even though you shoot down at speed and then slog back up the 9.3km, seven per cent gradient climb at a much more sedate pace. It may take up to an hour or more for us mere mortals but Emma Pooley holds the QoM at 30 minutes and the infamous Strava regular JP holds the KoM at 25.

"I think people come back every year because the weather tends to be reliable and then there's the friendly locals and a chance to meet up with your mates you don't normally see," says Le Grys.

"Any of the beaches or coves are worth a visit, the mountains are spectacular and of course you must take in some of the local towns and villages during your rides. The local cafes and coffee bars are great, especially the squares in Sineu and Petra."

Petra is a regular ride-out on the first day of Legro's camp and you've never seen such a bustling market square when the cyclists descend. Legro signs off with a mention of our favourite bar, Tolos. What makes him recommend this haunt out of so many? "It's the people watching that many people go there for. All the hitters go there. Roche. Kelly. Wiggins. And the food is amazing, but what sells it for me are the waiters — they are the best."

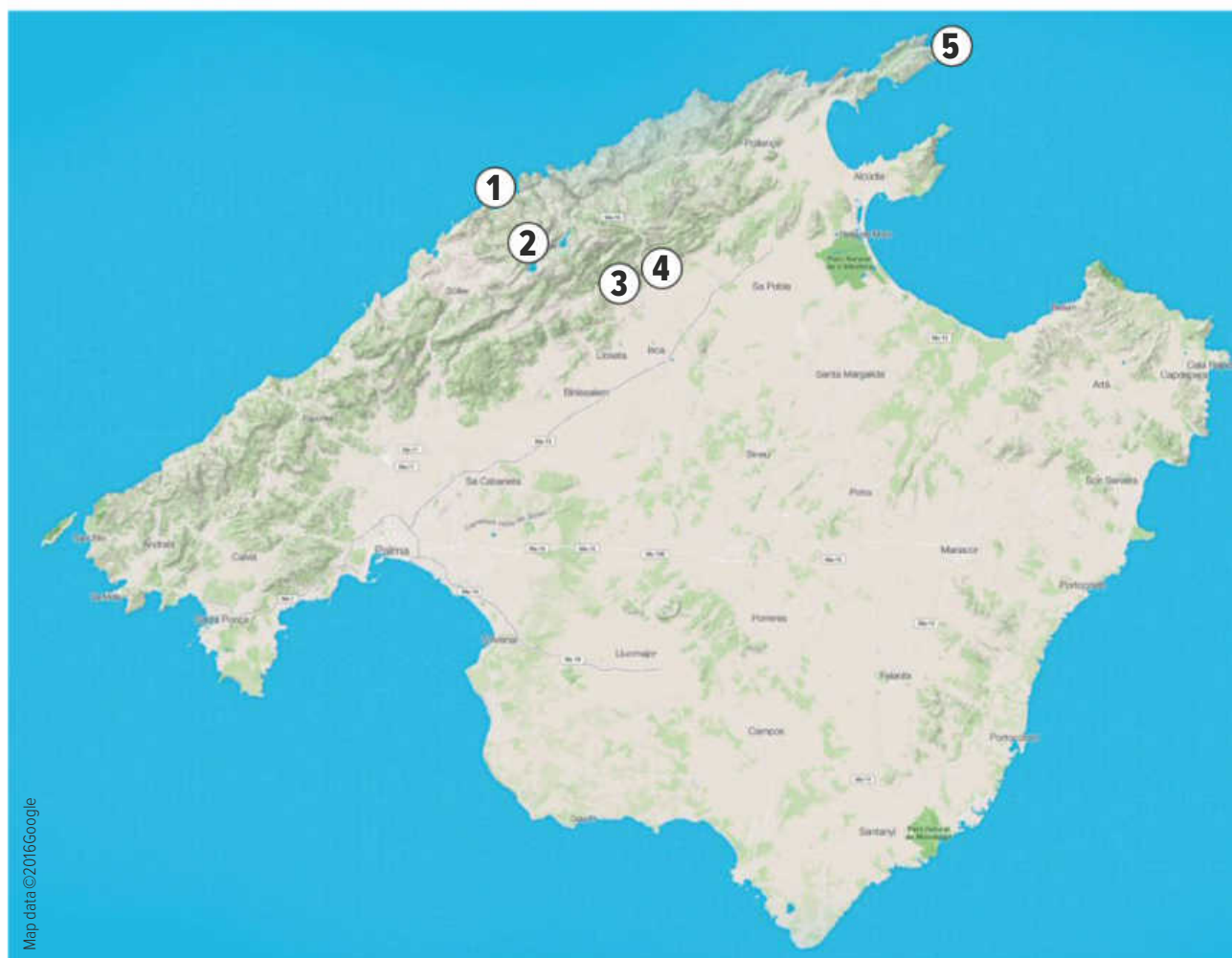
There's one thing you should know, aside from the best bars and cafes to stop by and that's the helmet laws. There's no arguing the toss: it's a legal requirement that you wear a helmet and, if you're stopped by the local police, you will receive a fine if you're caught riding without one.

But back to the beaches. If you're visiting Pollenca, there's a hidden paradise you must ride over to, between the old town and the port. It's a short ride up, past a classic car showroom and you'll crest the hill to discover an idyllic setting and the small, sandy, sheltered beach of Cala St Vincente. We probably shouldn't be printing this, as it still feels like an undiscovered, hidden gem, but hey, we're feeling generous. Enjoy.

THE ISLAND & KEY CLIMBS

A bevy of beautiful ascents each leading to picture postcard vistas await those who decide on a cycling trip or training in Majorca.

From the Sa Calobra to the 'Col de Petrol Statione' there's a guarantee of smiles, suntans and fizzing lactate.



CLIMBS

1 Sa Calobra
The aerial view of this climb looks like a roller-coaster, and it's equally exciting to ride. The professionals may scale it in just half an hour and it's a gradual slog, but it's certainly a gradient you'll notice, averaging around seven per cent. There are restaurants at the bottom of the descent, but remember you'll have to go back the way you came!

2 Puig Major
The highest permanently accessible climb, topping out at 854m — this is the ultimate challenge. From the start of the climb, just outside Soller, to the top is nearly nine miles. The average gradient is six per cent but it's shallower — and

significantly steeper — in places. Pine trees offer some shade but it can be a hot, dry climb. Stop in Fornalutx if you need a break on the way up.

3 Lluc Monastery/petrol station climb
From the Selva side you're

looking at a beautiful switch-back climb averaging around five per cent. Join the masses at the top and fight for a table at the cafe by the garage or roll over the top and take a first right to soak in some history at the monastery.

4 Lluc Monastery climb from Pollenca

Most people choose to descend this side but mix it up and climb straight out of Pollenca up to the monastery and you can descend the switchbacks of the other side to Caimari and Selva. Each side is contrasting and there are much longer straights of gradient to tackle this way, as well as some switchbacks.

5 The Lighthouse
If you're looking for a short but challenging ride, look no further than what's often referred to as the Lighthouse Ride. The stats from the Pollenca port to Cap Formentor and back add up to 1,600m of climbing and a 40km round trip. The view's worth it — take a wind cape.





Steel bikes

£1,400 to £1,850

Steel frames are back in vogue so we've tested four machines that combine traditional materials and old-school class with contemporary functionality

Words: James Bracey Photographs: Daniel Gould





What?

Steel has seen a huge resurgence in the past few years with the rise of the artisan frame-builder and popularity of bike shows such as Bespoked and NAHBS (North American Handmade Bicycle Show). Riders are being reintroduced to elegant, immaculately built, slender frames evocative of the heyday of the sport and are choosing these classic forms over modern carbon-framed machines.

Why?

We have chosen four bikes from brands either at the cutting edge of steel frame design or with a proven pedigree of working with the classic frame-builder's material, to see whether steel offers any

advantages over other frame materials. We also wanted to find out if steel can still cut it as a viable option against more modern materials. As our test bikes amply demonstrate, while most steel frames stick to the slim and straight approach to frame design, the adoption of modern thinking is present and correct.

How?

We've ridden all four bikes in varying weather conditions and have used them to explore the roads and lanes over a variety of different rides including all-day epics and short club-run style blasts. In order to test the ride comfort we haven't been shy in taking them down some of the roughest lanes the country has to offer!

TESTED



Genesis Equilibrium Disc 30 £1,849.99

Rock-solid all-rounder with modern features including powerful hydraulic disc brakes



The Light Blue Wolfson £1,399.99

Light, elegant and speedy road bike with retro aesthetics that doesn't sacrifice versatility



Bianchi Vigorelli £1,500

Legendary Italian style with classic touches and a ride that places a premium on comfort



Condor Fratello Disc £1,500

Ever-popular model from London-based brand that covers all bases with panache

Genesis Equilibrium Disc 30 £1,849.99



A solid do-it-all offering from Genesis

The Disc 30 sits on the second tier of Genesis's steel-framed Equilibrium range of bikes and is pitched as the perfect do-it-all bike.

Frame

The heart of the Equilibrium lies in the Reynolds 725 chromoly steel frame. It manages to combine the svelte, inherent good looks of a classic steel frame with a wealth of modern features such as a tapered head tube with lovely brass cable guides and inboard disc mounts. The bladed carbon fork has both internal cable routing and hidden mudguard mounts.

Specification

The highlight is the inclusion of Shimano's very capable RS785 hydraulic road brakes, combined with the smooth and quiet-shifting 105 drivetrain along with a compact chainset and 11-28t cassette. The Equilibrium also comes with Fulcrum's Racing Sport wheels; these are a wide-rimmed, disc-specific wheelset complete with weatherproof sealing — perfect for the riding this bike is designed for. Challenge's high-end Paris-Roubaix 27c tyres provide comfort and a sure-footed feel. Genesis own-brand contact points are comfortable, if a little

Specification

Frameset: Reynolds 725 heat treated chromoly steel, Genesis carbon fork/aluminium steerer
Gears: Shimano 105, 11-28t
Chainset: Shimano 105, 50/34t
Brakes: Shimano BR RS785 Hydraulic discs
Wheels: Fulcrum Racing Sport DB CX
Tyres: Challenge Paris Roubaix CL Plus 27c
Bars: Genesis Road Compact
Stem: Genesis Road
Saddle: Genesis Road Race
Seatpost: Genesis
Weight: 10.25kg/22.6lb
Size tested: Large
www.genesisbikes.co.uk

plain, with a well-padded saddle and handlebar with a short and shallow reach.

Ride

The overall feel of the Equilibrium is one of solidity. Riding along the most potholed lanes and roughest descents, the bike remained composed to give a smooth and comfortable riding experience. Being one of the heaviest bikes on test gave it a sluggish response when trying to sprint from the lights or climbing the steepest hills but the wide range of gears allow for a more steady approach to riding.

Value

The Genesis is the most expensive bike on test by some way, but this is largely justified by a high quality frame that is very versatile together with hydraulic brakes and reliable Fulcrum wheels. The bike's all-round ability could well mean it's the only bike you need for year-round use.



Hydraulic brakes help justify cost



Reynolds steel resplendent with Genesis tag



The Light Blue Wolfson £1,399.99



The Wolfson will do the huffing and puffing for you

Designed in Cambridge by the same experts behind the bespoke Townsend marque, the Wolfson is pitched at the fast sportive market but with a classic twist.

Frame

The choice of Reynolds 853 as the steel of choice marks out the quality of the Wolfson's frame. The incredibly skinny tubes and slender carbon fork hark back to a bygone era and is complemented with a retro paintjob. The slender carbon fork, bi-ovalised top and down tubes, chunky chainstays

and details such as hidden mudguard eyelets and replaceable dropouts do however show the up-to-date thinking that has gone into the design.

Specification

The Wolfson's drivetrain consists mainly of Shimano's 105 groupset which offers precise 11-speed shifting. The notable exception is the Tektro Quartz brake calipers — likely a cost saving measure as the performance is not on a par with the 105 calipers. The Halo Evaura wheelset is relatively lightweight and offers a wider rim profile that makes the Schwalbe

Specification

Frameset: TIG welded Reynolds 853 steel, carbon fork/aluminium steerer
Gears: Shimano 105, 11 28t
Chainset: Shimano 105, 50/34t
Brakes: Tektro Quartz
Wheels: Halo Evaura
Tyres: Schwalbe Durano 25c
Bars: Genetic Creed
Stem: Genetic SLR
Saddle: Gusset Black Jack
Seatpost: Genetic
Weight: 8.7Kg/19.2lb
Size tested: 56cm
www.thelightblue.co.uk

Durano tyres appear wider than their marked 25c. The finishing kit is all classic black alloy made by Genetic.

Ride

From the first push of the pedals the Wolfson didn't disappoint. The ride is superb with the Reynolds 853 frame being stiff enough for confident sprinting and punchy climbing. Descending felt confident up to a point but the brakes added a little 'edge' to the experience, especially in the wet.

Value

The quality of the frameset makes the Wolfson seem like a bargain. This is a bike that is happy being ridden full-blast for an hour or on steady, all-day rides. The clever choice of a lighter wheelset really boosts the appeal. Changing the brake calipers and fitting a longer seatpost (if needed) would make the bike perfect.

9



Tektro brakes added excitement in the wet



Shimano 105 offers reliability



Bianchi Vigorelli £1,500



Classic Italian style with modern performance

As Italian as pasta, the Vigorelli was created to celebrate Bianchi's 130th anniversary. The 'Bianchi celeste' colour-scheme and vintage graphics give it an unmistakably classic look.

Frame

The Vigorelli sports a chromoly steel frame. The slim-tubed Vigorelli looks very much the old-school racer with external headset, threaded bottom bracket and forged, non-replaceable dropouts. Mudguard and rack eyelets are present on the frame and it even has a pump-peg. The scalloped and

tapered carbon fork lends a '90s feel to the front end.

Specification

Once again, Shimano 105 is the groupset of choice for the Vigorelli and nowadays it offers performance that's comparable to Ultegra. Bianchi has deviated from the complete groupset by fitting the older non-series Shimano RS500 compact chainset and FSA brake calipers. Wheels are in-keeping with the Italian trend in the form of Fulcrum Racing Sport, complemented with 25c Vittoria Zaffiro Pro Slick tyres. The chrome finishing kit lends a classic, albeit

Specification

Frameset Bianchi Chromo Lite steel, K Vid carbon fork/aluminium steerer
Chainset Shimano RS500 50/34t
Brakes FSA Gossamer
Wheels Fulcrum Racing Sport
Tyres Vittoria Zaffiro Pro Slick 25c
Bars Bianchi compact
Stem Bianchi
Saddle San Marco Power
Seatpost Bianchi
Weight 9.3kg/20.5lb
Size tested 55cm
www.bianchi.com

quite basic, look that's further enhanced with a well-padded San Marco saddle.

Ride

Probably the most comfortable of the bikes in the test, the Vigorelli encouraged a casual, more elegant style of riding. It was certainly stiff enough to get away with aggressive sprinting or big gear mashing. The Fulcrum wheels were uninspiring but performed well and the FSA brakes did a better job of stopping than the Tektros on the Wolfson.

Value

The Vigorelli is a frame that can compete against many handbuilt frames at twice the price. Shimano 105 components offer smooth, accurate shifting and dependable, if workmanlike, Fulcrum wheels complement the package well. However, the finishing kit is basic and mudguard mounts on the forks would be welcome.



Non-series chainset detracts from looks



Celeste frame is Bianchi to the bone



Condor Fratello Disc £1,500



Trusted workhorse from a revered London brand

The Fratello is the London-based bike manufacturer's best-selling model. This is the latest incarnation with a new custom steel tubeset and disc brakes.

Frame

The Fratello has a Columbus Spirit tubeset, custom-shaped and triple-buttressed for a good strength-to-weight ratio. The tall head tube and almost horizontal, ovalised top tube create a very comfortable riding position. The disc-specific frame has the disc mounted inside the chainstay to allow the use of standard mudguards and racks

along with full-length outer cabling for the brake. The carbon fork has neat internal routing for the brake, and hidden mudguard mounts.

Specification

Shimano's 11-speed 105 5800 groupset is present almost in its entirety. A compact chainset is matched to an 11-28t cassette to give reliable and suitable gearing for a bike of this type. The braking comes courtesy of TRP's excellent Spyre mechanical brakes. Mavic's dependable Aksium One disc wheels, shod with Continental Gatorskin 28c tyres, enhance the bike's robustness. Branded Deda

Specification

Frameset Custom Columbus Spirit triple butted steel, Condor Pioggia Disc carbon fork
Gears Shimano 105, 11 28t
Chainset: Shimano 105, 50/34t
Brakes TRP Spyre mechanical discs
Wheels Mavic Aksium One Disc
Tyre Continental Gatorskin 28c
Bars Deda RHM01 compact
Stem Deda Elementi Zero1
Saddle Brooks Cambium C17
Seatpost Condor
Weight 10.8kg/23.8lb
Size tested 55cm
www.condorcycles.com

handlebars and stem are a neat touch and the Brooks C17 saddle is superb.

Ride

At cruising speeds the Fratello fairly sings along with an effortless level of comfort due to the design of the custom Columbus steel frame, while also offering a fairly lively ride with confident handling in all situations. Being the heaviest bike on test, climbing and accelerating were never going to be strong points and I often found myself reliant on the low gearing.

Value

It's hard to fault the Fratello for value. There is not one part I would change, though a set of lighter tyres and/or wheels for summer riding would expand its possibilities. The retail price generously includes a bike-fit that allows changes to bars and stem to suit individual needs and preferences.



Shimano 105 compact chainset



Triple-buttressed steel frame is both light and strong





Verdict Steel is real

The most talked about advantage of a steel frame is the fabled 'soft yet powerful' ride quality. When built the correct way, a steel frame has an inherent ability to smooth out rougher road surfaces better than a cost-equivalent aluminium, or cheap carbon, frame.

The four bikes ridden are all testament to the appeal of the steel-framed bike. Each offers the qualities asked of a good steel frame, albeit with slightly different approaches — as such it is difficult to decide which is the best.

All four have frames made from top-drawer chromoly steel tubesets from the world's best

manufacturers. The quality of welding and presence of impressive features show the high level of thought and design that has been put into each model. All four share the best parts of Shimano's superb 105 mid-range groupset, including wide gear ratios that are perfect for bikes of this ilk. Of course, there are plenty of aluminium or carbon-framed bikes with Ultegra groupsets at similar prices but this goes some way to reflect the higher costs of producing top quality steel frames.

Versatility is key

All four bikes can be seen as being designed for very different purposes but look a little deeper and you can see that their steel DNA makes them impressively versatile machines. Indeed, with a few small changes all four bikes can go from road riding, to winter

training, to commuting; even light touring is a possibility.

Take the Genesis for example. It has the most modern frame features of all four. With a tapered head tube, disc-specific design and the addition of Shimano's full hydraulic brake system, it's the clear winner in terms of future-proofing. Coming with a full complement of mudguard and rack fitments and weighty, robust wheels, the solid yet smooth ride of the bike will appeal to riders who want a bit more adventure out of their riding — think steady, potholed and gravelly expeditions — and will appeal to hardcore commuters. The price tag is a little high, though, especially when you consider the next model down, with similar specification, saves you £300.

The fully loaded Condor Fratello has gained a cult following of dedicated riders over the last

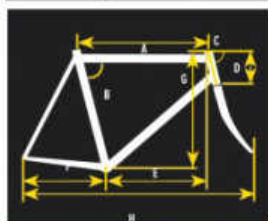
**The Light Blue
Wolfson: fun, fast
and versatile**



Genesis Equilibrium Disc 30 £1,849.99 **7**

Frame	■■■■■■■■■	8
Specification	■■■■■■■■■	9
Ride	■■■■■■■	7
Value	■■■■■■■	7

Frameset	Reynolds 725 heat treated chromoly steel, Genesis carbon fork/aluminium steerer
Gears	Shimano 105, 11 28t
Chainset	Shimano 105 50/34t
Brakes	Shimano BR RS785 Hydraulic discs
Wheels	Fulcrum Racing Sport DB CX
Tyres	Challenge Paris Roubaix CL Plus 27c
Bar	Genesis Road Compact
Stem	Genesis Road
Saddle	Genesis Road Race
Seatpost	Genesis
Size range	XS XL
Weight	10.25kg/22.6lb
Distributor	www.genesisbikes.co.uk

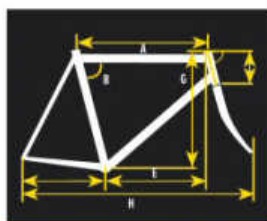


SIZE TESTED: L							
A	B	C	D	E	F	G	H
58cm	73"	73"	19cm	37.6cm	42cm	60.3cm	101.9cm

The Light Blue Wolfson £1,399.99 **9**

Frame	■■■■■■■■■	10
Specification	■■■■■■■■■	9
Ride	■■■■■■■	9
Value	■■■■■■■	9

Frameset	TIG welded Reynolds 853 steel, carbon fork/aluminium steerer
Gears	Shimano 105, 11 28t
Chainset	Shimano 105 50/34t
Brakes	Tektro Quartz
Wheels	Halo Evaura
Tyres	Schwalbe Durano 25c
Bar	Genetic Creed
Stem	Genetic SLR
Saddle	Gusset Black Jack
Seatpost	Genetic
Size range	50 62cm
Weight	8.7kg/19.2lb
Distributor	www.thelightblue.co.uk

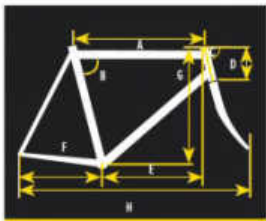


SIZE TESTED: 56 L							
A	B	C	D	E	F	G	H
57.2cm	73"	72.5"	16.0cm	39.5cm	41.3cm	58.0cm	100.8cm

Bianchi Vigorelli £1,500 **9**

Frame	■■■■■■■■■	10
Specification	■■■■■■■■■	8
Ride	■■■■■■■	9
Value	■■■■■■■	8

Frameset	Bianchi Chromo Lite steel, K Vid carbon fork/aluminium steerer
Gears	Shimano 105, 11 28t
Chainset	Shimano RS500 50/34t
Brakes	FSA Gossamer
Wheels	Fulcrum Racing Sport
Tyres	Vittoria Zaffiro Pro Slick 25c
Bar	Bianchi compact
Stem	Bianchi
Saddle	San Marco Power
Seatpost	Bianchi
Size range	49 61cm
Weight	9.3kg/20.5lb
Distributor	www.bianchi.com

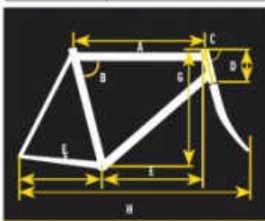


SIZE TESTED: 55							
A	B	C	D	E	F	G	H
55cm	73.5"	72"	14.5cm	39.5cm	41.5cm	55cm	99.5cm

Condor Fratello Disc £1,500 **8**

Frame	■■■■■■■■■	9
Specification	■■■■■■■■■	8
Ride	■■■■■■■	8
Value	■■■■■■■	9

Frameset	Custom Columbus Spirit triple-butted steel, Condor Pioggia Disc carbon fork
Gears	Shimano 105, 11-28t
Chainset	Shimano 105 50/34t
Brakes	TRP Spyre mechanical discs
Wheels	Mavic Aksium One Disc
Tyres	Continental Gatorskin 28c
Bar	Deda RHM01 compact
Stem	Deda Elementi Zero1
Saddle	Brooks Cambium C17
Seatpost	Condor
Size range	46-64cm
Weight	10.8kg/23.8lb
Distributor	www.condorcycles.com



SIZE TESTED: 55							
A	B	C	D	E	F	G	H
55.5cm	73.5"	73.5"	17.5cm	38.6cm	42.5cm	57cm	101cm

few years and it's not difficult to see why — in this guise with disc brakes and full mudguards it was the bike I defaulted to for riding in the worst winter conditions. The specification for the price is great and I fell in love with the Brooks saddle. OK, it was the heaviest in the test and did leave me struggling with faster riders on lighter bikes but with a change to a lighter wheelset and/or tyres, the Fratello would be transformed. The fact that Condor offers a bike-fit with your purchase only adds to its appeal.

The Light Blue's Wolfson errs towards the faster end of steel's appeal and was the most rewarding frame to ride. It responded well to accelerations and has a competitive weight that encouraged enthusiasm on the climbs. This is due in no small part to the stiffness of the Reynolds 853 frame giving it a

“With a few small changes all four bikes can go from road riding, to winter training, to commuting”

slightly less forgiving ride compared to the others. Not that it's uncomfortable, just that the other frames are *extremely* comfortable! The low weight of the Halo wheels and Schwalbe tyres added to the sprightly feel. It's not without its issues and the Tektro brake calipers were a particular low point; Shimano's excellent 105 stoppers would have been preferred.

Bianchi has created a great looking bike in the Vigorelli. The in-house steel tubing might not have the same appeal as the Reynolds or Columbus tubes of the others but the ride was beautifully balanced with enough responsiveness to raise a grin and

enough comfort to enable all-day epics. The portly, slow-to-accelerate wheels let it down a little and the finishing kit is basic.

Steel may still be seen as a 'niche' material but these machines prove that shouldn't be so. Each of our test bikes are perfectly designed for the riding that most of us do on a regular basis. There is no getting away from the fact that steel bikes are heavier than their aluminium and carbon price-mates but the smoothness and comfort afforded by the nature of steel is not to be dismissed.

The Condor, despite being the heaviest, offers the most versatility, with the Genesis a close second. For out-and-out enjoyment though, The Light Blue Wolfson and Bianchi Vigorelli deliver the goods, with the former just clinching it thanks to its excellent wheelset and the provision of mudguard eyelets.



Scott Foil Premium £8,999

An aero road bike that is said to be faster and more comfortable than its already impressive predecessor.

3 *superbikes*

£4,299 to £8,999

Henry Robertshaw takes on the arduous task of testing three money-no-object bikes

Photographs: Chris Catchpole



Bianchi Specialissima £7,900

A super-light carbon frame married to high-quality Italian components.



What?

Years of research and design go into creating the best bikes commercially available: carefully constructed layers of carbon-fibre are combined to create the lightest and stiffest frames; geometries are perfected to obtain the optimum race position; and multiple hours are spent in wind tunnels to find the best wind-cheating profiles. In addition to the top-end frames, superbikes come with the most sought-after groupsets and wheels that are light, stiff and roll effortlessly.

Why?

We review bikes at every price point here at *Cycling Active*, but if we're honest these are the sorts of bikes we simply love testing. There's something special about riding machines that are at the cutting edge of bike technology. These are bikes that have been tried and tested in the pro ranks, and although they might not make you as fast as Mark Cavendish or Chris Froome, they'll at least make you feel as if your Tour de France debut could be just around the corner.

How?

The three bikes have been put through some vigorous testing. They have been ridden hard and fast — be it flying down descents, cornering at speed, sprinting, powering along the flat and going up challenging climbs. Lastly, since they are superbikes, we've been compelled to acknowledge their aesthetic qualities.

Look 795 Aerolight Pro Team £4,299.99*

The 795 pushes the boundaries in relation to aerodynamics, integration and adjustability.

*frame, fork and crankset only

Bianchi Specialissima £7,900



Bianchi brings a WorldTour regular to the table

Bianchi's original Specialissima was made famous in the 1950s by multiple Grand Tour winner Fausto Coppi. The latest incarnation is the Italian company's flagship bike and is the ride of choice for WorldTour team Lotto-Jumbo NL.

Frame

The test bike might not feature the classic Bianchi celeste colour scheme, but purists will be happy since you can choose any colour you wish thanks to the custom frame builder option.

The Specialissima has an

aggressive geometry but with its round tube profiles the frame has more of a classic look than the other wind-cheating bikes on test.

With a claimed weight of 780g, the high-modulus carbon monocoque frame is incredibly light and rigid. However, to improve the comfort of the ride, the frame shares the same Countervail anti-vibration technology as its endurance-focused brother the Infinito CV.

Specification

Staying true to its Italian roots the Specialissima comes with Campagnolo's faultless Super Record mechanical groupset. The

Specification

Frameset Bianchi Specialissima Super Light Carbon and Bianchi Full CCarbon fork, both with Countervail
Gears Campagnolo Super Record 11 speed 11 25t
Chainset Campagnolo Super Record 52/36t
Brakes Campagnolo Super Record
Wheels Fulcrum Racing Zero Nite
Tyres Vittoria Rubino Pro Speed, 23mm
Bar FSA K Force Compact
Stem FSA K Force Light
Saddle Selle San Marco Aspide Carbon FX Open
Seatpost FSA K Force Light
Size range: 47-61cm
Size tested 55cm
Weight 6.5kg/14.33lb
www.cycleurope.com

Fulcrum Racing Zero Nite wheels are very good in their own right, but you might expect some lighter carbon hoops to get the most out of the featherweight frame.

However, no expense has been spared with FSA's top of the range K-Force Light finishing kit.

Ride

The ultra light and stiff frame provides a ride that is phenomenally responsive — it feels as if every watt you put through the pedals propels you forward. At the same time the bike handles well, meaning I could descend and corner at speed with confidence. However, despite the frame's dampening technology the ride could be smoother.

Value

This is unquestionably a stunning bike that was born to fly up hills — but it comes at a price and there are plenty of more comfortable superbikes on the market.



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The 795 is unquestionably an impressive looking bike. However, there are other comparable but less expensive dream framesets available, which would allow you to splash out on some truly top-end components — our build using the second tier Shimano Di2 groupset cost in the region of £8,230.



Scott Foil Premium £8,999



Every penny's accounted for with Scott's new Foil

The Scott Foil has received the most radical redesign of any bike for 2016, with a completely new aero frame which will be the choice of two top-level professional teams this season.

Frame

The new Foil features all of the integration that you'd expect from any modern aero bike. All the cables are neatly tucked away to make a bike that is a claimed 27 seconds faster over a 40km time trial than its predecessor.

The only small problems we

found was that both the seatpost clamp and the headset were fiddly to adjust, requiring both patience and a steady hand.

Specification

The Foil Premium is Scott's flagship bike, so it hasn't held back when kitting it out. Campagnolo fans might argue otherwise, but the Shimano Dura-Ace Di2 groupset offers the best shifting that money can buy, and the Zipp 404 wheels are also a perfect match for the bike. They're incredibly fast over all terrains, although braking in wet conditions could be a little better.

Specification

Frameset Scott Foil HMX
Gears Shimano Dura Ace Di2, 11 28t
Chainset Shimano Dura Ace Di2, 52/36
Brakes Shimano Dura Ace, direct mount
Wheels Zipp 404 Firecrest
Tyres Continental Grand Prix 4000S II, 23mm
Bar Syncros Carbon Foil Combo
Stem Syncros Carbon Foil Combo
Saddle Syncros RR1.0 carbon
Seatpost Syncros Foil aero carbon
Size range: 2XS-2XL
Size tested: L (56cm)
Weight: 7.08kg/15.61lb
www.scott-sports.com

Ride

The Scott Foil is a seriously fast bike. Acceleration is incredibly sharp, especially on flat roads, making this a sprinter's dream, and it's just as good rolling along at a decent lick, with the Zipp wheels combined with the aero frame helping to hold speed really well.

More surprising is how comfortable this bike is. The slender seatstays, reduced cross-section seat tube, and flat top tube combine to make a race bike that is still at home on rough British roads.

Value

At a penny under £9,000, this bike will only ever be a dream for most of us, but actually offers a pretty good package for the price. The frameset on its own is valued at £3,000, which is more than reasonable for such an exceptional frame, and Scott has used the rest of its budget wisely with wheels and groupset that match the quality of the frame.

10



Aerodynamic direct-mount rear brake



Seamless seatmast



Verdict

Scott's got the lot

Let's get one thing straight: all three of these bikes are exceptional works of engineering.

The culmination of 10 years of research and development, the Look 795 Aerolight is one of the most startling looking bikes on the market, with the fully integrated stem and teardrop-shaped tubes creating an unmistakable machine that looks as fast as it rides.

The Scott Foil Premium might not look quite as radical, but manages to marry speed with comfort and integration with convenience, to make a bike that is as good to ride all day as it is when you decide to put the hammer down.

Finally, the Bianchi Specialissima fits the classic mould of a lightweight superbike, but with special technology

designed to make it more comfortable for longer rides.

Aero face-off

It makes sense to compare the two aero bikes on test head-to-head. As you would expect, both the Look and the Scott are at their best when ridden at high speed. The combination of aero tube shapes and deep-section wheels make for a pair of bikes that really come into their own when cruising around at a decent lick.

Getting up to speed is where there is more of a difference, with the Scott feeling sharper when you stamp on the pedals. The Scott is also significantly more comfortable than the Look, and I was much happier taking the former out for big days in the saddle.

However, both bikes highlight the main problem with aero integration, namely that

maintenance becomes an awful lot more fiddly than on your run-of-the-mill road bike.

Lightweight challenge

The Bianchi is a whole different kettle of fish. While the Look and Scott are a radical departure from road bike norms, the Specialissima has a more classic look that harks back to its 1950s origins.

But don't be fooled into thinking this is a mere exercise in nostalgia. The 780g frame lays the foundations to give an all-up weight of just 6.5kg for the complete bike — seriously impressive and welcome when accelerating or riding uphill.

However, what was a little disappointing was the comfort of the Specialissima. The Countervail technology is designed to take a little of the vibration out of rough roads, but the smoothness of the



ride was still nothing to write home about, and I would even plump for the Scott for longer rides.

Super spec?

Although all three of these bikes have frames worthy of their superbike status, it is only the Scott Foil that provides a specification that matches the quality of the frame.

Admittedly the Look is sold as a frameset only, so it's hard to criticise the finishing kit for not being up to the standard of the frame. But given that the frameset is so eye-wateringly expensive, you would be looking at a final price of over 10 grand to kit it out with a similar level of kit as seen on the Scott.

"Only the Scott Foil gets a spec that matches the frame's quality"

The Bianchi is a little more impressive, especially with the Campagnolo Super Record groupset, but is still let down a bit by the wheels, and would certainly be enhanced by the addition of some posh carbon hoops.

Therefore it's only really the Scott that stands out. The wheels are the equal of the frame, and not only do you get full Shimano Dura-Ace Di2, but Scott has even fitted sprint shifters on the inside of the drops.

And it is really on the specification that the Scott sets itself apart. Its frame is the first among equals, but it is only the Scott that manages to marry it with components that really reflect its superbike status.

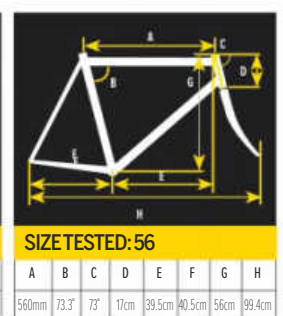
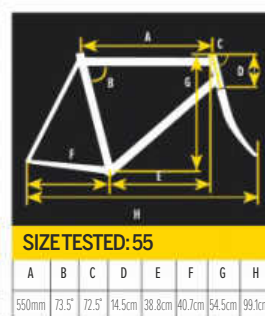
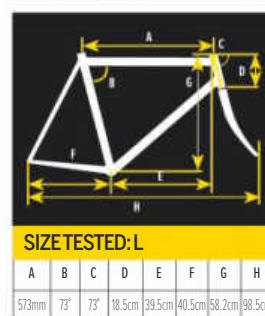
Look 795 Aerolight Proteam £4,299.99	8	Bianchi Specialissima £7,900	9	Scott Foil Premium £8,999	10
Frame	9	Frame	10	Frame	9
Specification	8	Specification	8	Specification	9
Ride	9	Ride	9	Ride	10
Value	8	Value	9	Value	10
Frameset	Look 795 Aerolight with HSC 8 Aero carbon fork	Frameset	Bianchi Specialissima CV with Bianchi Full Carbon CV	Frameset	Scott Foil HMX
Gears	Shimano Ultegra Di2 11-28t	Gears	Campagnolo Super Record 11-25t	Gears	Shimano Dura-Ace Di2 11-28t
Chainset	Look ZED 2 crankset 50/34t	Chainset	Campagnolo Super Record 52/36t	Chainset	Shimano Dura-Ace Di2 52/36t
Brakes	Integrated Look Aero Brakes. Shimano Dura-Ace direct-mount	Brakes	Campagnolo Super Record	Brakes	Shimano Dura-Ace direct-mount
Wheels	Mavic Cosmic Pro Carbon Exalith 23	Wheels	Fulcrum Racing Zero Nite	Wheels	Zipp 404
Tyres	Mavic Yksion Griplink/Powerlink	Tyres	Vittoria Rubino Pro Speed, 23mm	Tyres	Continental Grand Prix 4000S II, 23mm
Bar	Look ADH Carbon	Bar	FSA K-Force Compact	Bar	Syncros Carbon Foil Combo
Stem	Look Aerostem	Stem	FSA K-Force Light	Stem	Syncros RR1.0 Carbon
Saddle	Selle Italia SLR Flow Monolink	Saddle	Selle San Marco Aspidi Carbon FX Open	Saddle	Syncros Foil aero Carbon
Seatpost	Look E-Post 2	Seatpost	FSA K-Force Light	Seatpost	Syncros RR1.0 Carbon
Size range	XS-XL	Size range	47-61cm	Size range	XXS-2XL
Weight	7.48kg/16.49lb	Weight	6.5kg/14.33lb	Weight	7.08kg/16.6lb
Distributor	www.fisheroutdoor.co.uk	Distributor	www.cycleurope.com	Distributor	www.scott-sports.com



Sleek aero carbon frame



Dura-Ace Di2 chainset



Aero helmets

With a firm nod towards marginal gains, *Oliver Bridgewood* takes a look at four aero lids

What?

When Mark Cavendish sprinted to victory in the 2011 World Championships he was wearing a Specialized Prevail fitted with a special cover designed to seal the vents, smooth the airflow and, ultimately, make him faster. This pioneering modification didn't go unnoticed and since then we have seen the appearance of production aero road helmets in bike shops. These helmets are more aerodynamic and faster than their standard counterparts, often at the cost of increased weight and reduced ventilation, though the latter does bring an added benefit when riding in cold weather.

Why?

Aero helmets divide opinion, with

manufacturers claiming they make you faster but some cynics arguing that they are ugly and ultimately just an excuse to get people to buy more helmets. There are now several different options available, so we decided to put a selection to the test.

How?

I have tested these helmets on a variety of rides and have judged them on the following criteria: comfort, fit, venting, quality, versatility, weight, value, styling and any bonus features. All helmets tested were a size medium and have been weighed on the CA scales. We would, however, suggest you try before you buy as certain helmets suit certain head shapes better than others.

Bollé One (£109)

If you are after versatility, the One helmet is the winner. The panels can be easily popped off to expose the vents and provide far greater cooling. Something that is ideal if you normally ride in a temperate climate like the UK, but occasionally head to warmer climes. Many road riders enjoy hitting the trails for the occasional blast of mountain biking. To this end, the One also has a detachable visor. One of the features that

Weight
343
grams

stood out for us is the special sunglasses 'garage' at the front that can be used to securely stow your eyewear.

I found the helmet performed especially well in wet and cold weather with the covers on, and did a good job of keeping me warm and dry.

Other helmets on test are lighter but Bollé claims that the new 'One' exceeds shock absorption requirements by 97 per cent, a claim that has been verified by independent testing.

The One is really comfortable too, with ample padding that can be removed for washing. There is also a built-in rear light. However, Bollé makes no claims about the One's aerodynamics as it hasn't been tested in a wind tunnel.

7

Size tested: M

Sizes: M (54-58cm) and L (58-62cm)

Colours: too many to list, see website www.bolle-europe.com



Bollé: the do-it-all option



KEY FEATURES

Looks

The looks can divide opinion and unless you are racing or training to race, they might look out of place.

HOW WE SCORE

- 10 - Superb, best in its class and we couldn't fault it
- 9 - Excellent, a slight change and it would be perfect
- 8 - Brilliant, we'd happily buy it
- 7 - Solid, but there's better out there
- 6 - Pretty good, but not quite hitting the mark
- 5 - OK, nothing wrong with it, but nothing special
- 4 - A few niggles let this down
- 3 - Disappointing
- 2 - Poor, approach with caution
- 1 - Terrible, do not buy this product

Venting

Aero helmets tend to have less venting than their traditional counterparts, a feature that can make them much warmer.

Weight

The increase in weight over a normal helmet is small and barely noticeable.

Bontrager Ballista £129.99

The Ballista was worn by Jens Voigt during his successful tilt at the Hour record and is used by the Trek Factory Racing team. Bontrager has refined the design in the wind tunnel and claims that it is more aerodynamic than other leading helmets, including the Giro Air Attack in this test. Without access to our own tunnel, we

cannot verify this.

Weight

268
grams

The internal AglON padding is antimicrobial, meaning the helmet doesn't get as smelly. The padding is removable, too. The Ballista feels cool for an aero helmet, but is still warmer than a conventional lid. By comparison, it is cooler than the Giro Air Attack, but warmer than the Bollé One (with the vents exposed). The fit is decent, but I did find the Bollé and Giro more comfortable.

My biggest gripe with the Ballista is the lack of holes for sunglasses. While this is not a deal breaker for all riders, those who like to slot their glasses into their helmet should look elsewhere. It does, however, score marks for value. £129.99 is a lot of money, but it is significantly cheaper than equivalent products from Specialized and Giro.

Size tested: M

Sizes: S-L

Colours: black, white, red/white, yellow

www.bontrager.com



8

Giro Air Attack Shield £179.99

Back in 2012 the original Air Attack was one of the first aero road helmets to hit the market and its latest incarnation has been ridden to some notable victories in the pro peloton.

Giro claims that when travelling at 40kph it is an impressive 17 seconds faster than its standard Aeon helmet over 25 miles. Like all aero helmets there is a compromise in ventilation — but with six vents and Giro's RocLoc Air fit system, which slightly raises the shell from your head, the Air Attack can be worn on all but the warmest days.

From a comfort point of view this is the best on test, with a fit that can be adjusted on the fly by turning the dial at the rear.

Although not *de rigueur* in eyes of most roadies, the removable visor is said to improve aerodynamics. It is held in place by three magnets and can easily be stowed when not needed, though it's worth noting that it's also easy to knock off.

This is a top-quality helmet that will appeal to road racers, time triallists and triathletes alike. However, there are now options with better ventilation and the design looks a little dated.

Size tested: M

Sizes: S-L

Colours: too many to list, see website

www.zyro.co.uk



Giro: gets the comfort gong

Lazer Z1 £199.99

The Lazer Z1 brings something a little different to the table. Instead of being purely an aero helmet, the Z1 comes with a removable shell that allows you to switch between an aero helmet when you're looking for speed and a standard, vented helmet on long, hot days in the saddle where

you want to stay cool.

Weight

238
grams

However you wear it, this is a really comfortable helmet. The Rollsys adjustment is located on the top of the helmet,

making it easy to use, and offers plenty of adjustability to ensure a really good fit, allowing you to fit a cap underneath on chilly days.

The main downside of this helmet is that, perhaps because Lazer has given you the option to use this as a fully vented helmet, when you do have the aeroshell attached, there is no ventilation whatsoever, meaning that you can overheat pretty quickly.

The other smaller negative with the Z1 is that although it feels comfortable, it does look a little bulky when you put it on, jutting out from the sides of your head.

Size tested: M

Sizes: S-L

Colours: too many to list, see website

www.madison.co.uk



BEST ON TEST

9



Sunglasses

Glasses can be seen as a luxury, so *Jamie Darlow* tests 10 high-end options

What?

Eyewear is not just a fashion statement. It is to wear any time of day and any season of the year, because any time you're riding your bike, you should be wearing some kind of eye protection. Ideally, you need something with multiple lenses or a photochromic lens that adapts to changing light conditions.

Why?

Good glasses will protect your eyes from the sun's radiation, from road debris and from wind when your speeds pick up, all essential for seeing the road ahead. And perhaps best of all, they'll make you look

cool and give you enviable tan lines from eye to ear.

How?

We've tested these 10 pairs over sunny, then increasingly wet and windy autumn and winter rides. They've been paired with a number of helmets both road style like the Giro Atmos and XC lids, like the Specialized Tactic to see how each pair feels with different helmet set-ups. Heck, we've even taken them off-road to see how they react when the mud really begins to fly.

HOW WE SCORE See page 80

KEY FEATURES

Lens

Go for wrap-around glasses with coverage that doesn't obstruct your vision

Fit

Glasses should fit close to your face and be comfy enough to forget

Extras

Interchangeable lenses offer durability for a range of conditions

POC DO Half Blade £215

Swedish brand POC might only have been around for a decade, but it's quickly built up a reputation for excellent quality kit on snow and wheels alike. The ski influence is easy to see in the DO Half Blades as they offer the most protection for your eyes, with the lens dropping low down your face and offering little in the way of a gap for light or grit to sneak under. They proved to be our first choice for off-road riding too, thanks to the big coverage and clear

Weight

32
grams

lens for shady forest tracks.

Despite the chunky arms there's unobstructed peripheral vision and the malleable and hydrophilic nose bridge pushes the glasses high onto your brow to continue that great coverage and to ensure your view isn't obstructed. The lenses give good clarity with no noticeable distortion, although the tint shifts from orange in the middle to green at the edges of vision, which is slightly off-putting, and they swap out easily. The Half Blades are brilliant, but very expensive. Stay away from the Hydrogen White colour, as the white nose-bridge catches the sun and reflects back onto the lens.

8

Colours: white/green, black, uranium
Lenses included: clear and tinted
www.2pure.co.uk



Rudy Project Tralyx £164.99

The Tralyx proved to be the best glasses on test in terms of fit. I forgot I was wearing them on more than one occasion, dropping them when taking my helmet off after a ride. Part of this is down to the low weight of the Tralyx, and part is due to the extremely flexible frame that twists without breaking around the helmet. They creak and feel quite flimsy, but

Weight
28
grams

it's worth the trade-off. Finally, the rubbery arm ends are easy to move out of the way of your helmet straps.

Ventilation is first-rate and although there's less coverage than the POC glasses, wind protection at speed was the best on test — nothing seems to get through. We opted for a nearly clear lens, which proved great in low light and under trees but also took the edge off road shine when the sun emerged, thanks to its photochromic lens that adjusts to varying light conditions. If you can stump up the price the Tralyx is our first choice.

10

Colours: black, red, yellow, white, silver, graphite
Lens included: clear
www.yellow-limited.com



Endura Pacu £79.99

The Pacu's one-piece lens is the star of the show for Endura; it's photochromic so adjusts impressively quickly when the light levels change, it's very clear and doesn't distort the light — and all on a piece of eyewear costing just £80. Endura says it's anti-fog but we didn't find it so, it tended to mist a little in damp conditions.

The frame lets the Pacu down though. The half-frame is good for giving you a clear view straight ahead, but the outside edges of the frame protrude too far down and wrap slightly around the bottom: those jawbones get in the way when you're looking over your shoulder, and worse, you can actually see them when looking

straight ahead, giving the Pacu a claustrophobic feel. The frame is wide, offering good coverage, but it's not as comfy as most because there's not enough cushioning or material in the nose bridge — it pinches slightly. The arms are also not flexible enough at the ends, so poke under your helmet. That said, £80 for photochromic eyewear is superb, and when the lens wasn't misted it proved clear enough.

Colours: blue, green, red
Lens included: photochromic
www.endurasport.com



Scott Spur £99

Scott says the Spur is for medium to large faces, but really it's too small for that, and is easily the smallest pair of glasses on test. In fact they're so small they fit comfortably inside the Rudy and POC. This means the arms tend to pinch the side of your head and the coverage from the lenses feels just a touch too narrow, and even the nosepiece feels less comfortable than most. The arms obstruct your vision out of the corner of your eyes a little too,

Weight
32
grams

although I do like their short length that stays well clear of your helmet's cradle and doesn't conflict with any we've tried.

Perhaps because of the snug fit, the Spur does a brilliant job of keeping wind and crud out of your eyes, and the tinted lens is spot-on for winter riding. They also feel very robust and solid enough to survive a few drops. I really wanted to like the Spurs because the lens really works in a range of conditions, but Scott needs to reassess its sizing: as things stand they're only worth considering if you have a small head.

6

Colours: black, white, green, red
Lenses included: tinted and clear
www.scott-sports.com



Oakley Radar EV Path Polarized £175

Oakley is synonymous with cycling: over the last two decades its glasses have been the first choice for racers and weekend riders alike. It's easy to see why — the lens quality is first rate, and in bright sunshine or with glare coming off the road these are the best glasses on test: they seem to take the harshness from any light without dimming its clarity, so you still get to see every blemish in

Weight
28
grams

the road. With the polarised lens there's no distortion to the field of vision either, and fogging wasn't an issue.

The fit is extremely secure too, with rubbery arms that grip well without putting undue pressure on your head. They're a touch too long though and interfere with some helmets. Likewise, the nosepiece isn't adjustable like some glasses here — it's comfy, but could be better.

The Radars are expensive, they don't adjust to the light with a photochromic lens option like some others on test here do, and the fit isn't as advanced as some of the glasses here. But on lens quality alone they're brilliant.

Colours: blue, black, red
Lens included: tinted
www.uk.oakley.com



Bollé 6th Sense £155

No, those aren't blinkers Bollé has attached to the sides of the 6th Sense; they're removable, clip-on plastic flaps that are designed to screen your eyes better from the wind. They do a pretty good job too, protecting your eyes even at speed, and particularly when you turn your head, offering a barrier to the wind. They look pretty naff though, in my opinion, and actually do have a mild blinker effect, reducing the visibility over your shoulder. The 6th Sense glasses

Weight
31
grams

are really big on your face, offering loads of coverage from sun and wind, and the Modulator lens changes quickly for different light conditions. The glasses are in exactly the right position

on your face, right at the top of your vision, and as there's only a small frame bridge at the top there's nothing to get in the way of your vision. They're really comfortable to wear because of the mouldable arm ends, which you can shape into any position: they're essential to getting a secure fit on what are extremely wide and otherwise loose-fitting glasses; get this right and they feel terrific.

Colours: green, black, yellow, grey, red, white
Lenses included: tinted
www.profsports.com



Smith Optics Pivlock Arena V2 Max £120

Smith's Pivlock glasses are frameless, meaning the field of vision is exemplary — nothing in the way when you're head down and looking out the top and no restrictions when you're checking over your shoulder for cars. There's a price to pay for this though, because there's a whopping great air gap around the lenses that a hard plastic frame usually fills. The Pivlocks were some of the

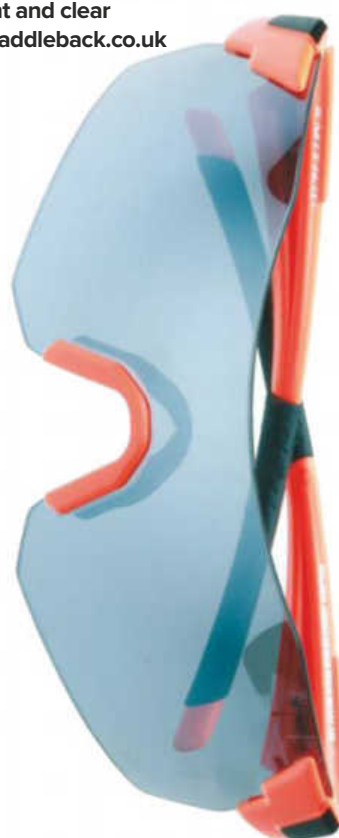
Weight
27
grams

breeziest glasses on test and really don't sit close enough to your face to stop airflow. Smith makes a big deal over the adjustable nosepiece, designed to tune the fit, but it only moves up or down by

2mm or so and doesn't make nearly enough difference. It would be better if it just flexed inwards and outwards to position the glasses on your nose.

It's a shame, because the Pivlock comes with three good-quality lenses that do appear to put plenty of plastic between you and the road. Of course, they don't suffer from misting and they do look really cool but I don't think there's enough protection here.

Colours: green, brown, black, red, grey, yellow
Lenses included: grey tint, pink tint and clear
www.saddleback.co.uk



Tifosi Escalate FSH £139.99

The most versatile of glasses on test, you can swap and change the lenses and the frame itself to be either full-framed, half-framed or even no-framed. It's a great concept, but we were left wondering if it's strictly necessary — people who want a half-frame pair of glasses, for example, will buy a dedicated pair, so I wonder how many people will end up swapping frames on these Escalates. I also really want Tifosi

Weight
30
grams

to work it all out for me... The problem is that the biggest lens on offer, consequently giving you the best coverage from sun and water, is the frameless option. But this option doesn't do the best job

of keeping the wind out of your eyes — that accolade goes to the half-frame.

The Escalates don't grip your face well enough either — I found myself pushing them back up my nose at annoyingly regular intervals. The arms are too loose and the curve too obtuse to secure them. The tips of the arms are mouldable and can be pushed closer to your head, but they really need to move up and down to tuck neatly out of the way of your helmet.

Colours: black
Lenses included: tinted, clear
www.zyro.co.uk



Madison Recon £79.99

Eighty pounds buys you the Madison Recon glasses, which come with three lenses: a mirrored tinted lens, a clear option and a light-enhancing lens. The lenses are made not by Madison but by Zeiss, and they proved clear and accurate — many budget glasses tend to magnify or distort your vision.

The Recon's fit is excellent even on large faces, hugging the side of your head to remain wobble-free even on rough roads. The rubbery nosepiece and rubber-tipped arms help this too of course, gripping easily. Protection from wind and road debris is good, and they didn't mist up thanks to the decent amount of venting across

the top of the lenses.

Our only real gripe is that the lenses aren't the easiest to change. Pulling the lens from the frame is easy enough, but cramming the new one in is slightly unnerving as you have to force them into place and that inevitably results in finger marks all over the place. That said, they didn't break or scratch despite this rough treatment.

Colours: grey, black, yellow, red, white
Lenses included: tinted, clear, light enhancing
www.madison.co.uk



Spiuk Arqus £89.99

The Arqus's half-frame design is stylish, but with chunky-looking arms and a large top part to its frame that looks like it would impede your vision. Nothing could be further from the truth though — the frame sits high enough to be almost completely out of sight, staying firmly in place thanks to its rubbery nosepiece and arms. It's really well held in position too thanks to really grippy rubber that also does a good job of soaking up sweat. The

Weight
29
grams

view out the side is exemplary too, with those chunky arms staying high, and curving out of the way of helmet straps too.

Our version came with three lenses, a clear option, a light-enhancing lens and a tint, although there is an option to include a photochromic lens. We found the light-enhancing lens most useful for winter months. It proved fog-free even when going hard up climbs and helped pick out potholes and muddy patches on the road. For £90 the Arqus glasses are brilliant value considering the lens options you get.

Colours: red, black, white, yellow, green,
Lenses included: tinted, light enhancing, clear
www.silverfish-uk.com



Handlebar tape

Jamie Darlow tests seven of the best handlebar tapes ranging from £10 to £30

What?

Handlebar tape has come a long way in the last 10 years. The old stuff is made from cork, which is still available, but the modern and pricier tapes are usually made from rubber or plastics. Its job is to let you grip the bar securely, while also taking some sting out of road imperfections, all without losing the feel for the road.

Why?

Not all bar tape is made equal and as one of the main contact points with your bike it should suit your needs. It needs to remain grippy even when it's wet, and it needs to be thick enough to cushion your

hands, unless you prefer it to be applied thinly for dexterity purposes. It's also good if it lasts longer than one season, because it's relatively expensive for just two strips of plastic and rubber.

How?

To test these bar tapes we concentrated on their performance over autumn and winter conditions, rewarding those that provided good grip with and without gloves, and those that didn't leave us with aching hands after an hour in the saddle.

HOW WE SCORE See page 80

KEY FEATURES

Material

Leather, plastic, cork... it doesn't matter as long as it grips well. Look out for the different 'feel' of some tapes — tacky, smooth and suede are all popular

Plugs

The more expensive tape comes with bolt on plugs that are easy to remove and install, but plastic plugs do the job too

Cushioning

Tape needs to be well cushioned to save your hands, but not so thick that it makes the bar uncomfortable to grip

Radial Grippy Bar Tape £9.99

The Grippy Bar Tape from Radial is made from polyurethane and features a diamond pattern to help increase the grip and improve the feel under your hands. Underneath that polyurethane cover there's a strip of shock-absorbing gel designed to reduce vibrations from

Weight

83
grams

the road, and it's this layer that forms the tacky backing to stick the tape to your bar. It's really easy to fit thanks to a little bit of stretch in the material, and the tapered edges give it a decent finish that looks great.

The feel of the radial tape is excellent — instead of the stickiness sometimes present in tacky-touch tapes, it provides more of a pleasing rubbery feel. This offers a good level of grip in the wet and even improves if you ride without gloves and the tape gets sweaty. This performance is probably down to the diamond pattern, which allows it to move a little under your hands and lets the polyurethane deform.

It's a relatively thin tape — compared with the competition here — but the Radial Grippy is still surprisingly comfortable on your palms, even on really rough sections of road. If this tape was £20 we'd be saying it was good stuff, but for half that price it's exceptionally good value.

10

Colours: Black, grey, white
www.radialcycles.co.uk

**BEST
ON TEST**



Lizard Skins DSP 3.2mm Bar Tape £32.99

Most tapes like to mimic the feel of natural fibres, with a faux cork or plastic suede look — not the Lizard Skins tape. It's unashamedly manmade, constructed from something called DuraSoft Polymer, which really does make it feel different to everything else on the market. It's soft and comfy,

Weight
78
grams

tacky feeling almost, and grippy even when wet thanks to the rubbery feel and the big chevron patterns cut into it.

At 3.2mm thick it's easily the deepest tape here, and also the longest at a whopping 226cm. You do actually need all that extra length though because as you apply the tape, and overlap each wrap, the increased depth means it has further to travel.

It's designed for the cobbles of Paris-Roubaix, so as you'd expect it's exceptional on rough stuff, and probably the best tape for cyclo-cross. It's the grippiest and gives the best road dampening of any tape on test, while also being surprisingly hard wearing.

The Lizard Skins tape isn't for everyone though, as it does add considerable width to your bars — riders with small hands might find it too much, as might those who prefer a 'purer' feel to the bar. That's not what prevents it getting full marks though — it's the £30 price-tag that limits it.

Colours: Black, white, grey, blue, red, green
www.2pure.co.uk



9

Supacaz Super Sticky Kush £32.95

Supacaz's marketing approach is to drape its bright bar tape across naked ladies. Thankfully though there's something more substantial to the brand than this daft misogyny: a great performing tape. We say tape because there's only one type on offer from Supacaz, the Super Sticky Kush — a

Weight
114
grams

smart move because who wants to spend time picking out a specific type of tape? It's the colour schemes that determine the different prices though, varying from £27.95 for a single colour

through to £35.95 for national team colours. Now that's smart marketing — just get the cheapest, unless you must have a different colour on the drops compared to the tops, which Supacaz can cater for.

The top layer is polyurethane and gives the tape a really good and tactile feel, even if you're riding gloveless. It's grippy too, and really does get more so when you get it wet with sweat. Underneath it's EVA foam to smooth the road and then a silicone gel adhesive that combines to make the Kush really comfortable for its 2.5mm thickness. It's easy to apply because of the sticky silicone but easy to remove too, without residue, although there's no clamp protector. Finally, the screw in star plug bar plugs and laser-etched plugs help explain the cost — it's a really neat design.

Not quite as sticky as the Lizard Skins, but really long lasting to help justify the cost and a great choice if you like a thin grip with good cushioning.

Colours: All of them
www.silverfish-uk.com



6

Cinelli Fluo Ribbon £26.99

The Fluo Ribbon is made from multi-density foam, that Cinelli says is for comfort, and helps you get the Ribbon neatly and easily wrapped round your bars. The leather-look

Weight
97
grams

coating that wraps on top is then perforated to make the tape more breathable, while the fluoro colour is, according to Cinelli, for safety and style. I

think they're right; it is stylish tape as you only see a flash of fluoro and the leather feel and look is really sophisticated.

The Fluo Ribbon isn't comfortable enough for long rides or rough roads though because it's just a bit too firm to really take the buzz out of things. There isn't enough of the foam to soak up the hits and what little there is remains pretty solid, jarring my hands on some rides. The Fluo Ribbon is only just long enough too, as I found myself coming to the end of it with only an inch or two to spare when putting it on, something that wouldn't be suitable with chunky aerobars. I can't fault how grippy it is in the dry, but I really didn't like it in the wet because it's too skiddy under your hands, especially if you're riding gloveless. The price is too high and there are better tapes for less (and more) money.

Colours: yellow, orange
www.chickencycles.co.uk



8

Fizik Performance Soft Touch £15.99

As you'd expect from the name, the Performance tape has a soft touch to it, rather than a tacky feel (which you can get from Fizik for £8 more, if you so choose). This means that, inevitably, there's less grip available

Weight

95
grams

than the Supacaz and the Lizard Skins tape. It's by no

means slippery though, the Microtex suede feel does have something for your skin to grab on to and the crazy-paving pattern running through the grip really helps, as does the off-centre raised strip running along its length. It's also one of the nicest feeling tapes on test, and a favourite of ours for riding gloveless. When wet the fabric also remains grippy in the rain.

The Performance tape remains comfy when your hands sweat too, because it seems to wick away water — the perforated holes running throughout the fabric help it breathe. Despite its 3mm thickness, it's not the most cushioned of tapes, probably because the fabric has less give in it than the rubbery tapes like Radial or Supacaz. This means it has to rely on the padding underneath alone. But it's good value and a great all-rounder

Colours: Black, white

www.extrauk.co.uk



9

Fabric Knurl Tape £17.99

Fabric is fast becoming one of the most innovative brands in cycling, bringing us the cageless water bottle and the carbon-fibre leaf spring ALM saddle. Now it has done a similar, if less showy, thing with bar tape, introducing Allen key accessible bar plugs. Instead of just jamming them in the end of the

Weight

99
grams

bar, like normal, the Knurl uses a bolt to spread the plug internally, ensuring a flawlessly secure fit.

The tape itself is made from rubber, with a layer of silicone gel underneath to take the sting out of the road. It feels smooth on the bar, meaning you can move your hands about with ease, but grip a little tighter and the tape seems to become more malleable and disproportionately grippier (this is a good thing!).

It's also one of the easiest tapes on test to fit, thanks to the sticky layer that contacts the bar which grips like glue but still manages to come away cleanly, which allows multiple efforts to get the finish just so.

The Knurl isn't cushioned enough though to win this test though, and the tape's surface feels slightly harder than the excellent Radial tape. But it's good value and will appeal to those who like a thin grip and minimal interference from tape.

Colours: Red, green, blue, black, white

www.fabric.cc

7

Pro Sport Control Handlebar Tape £16.99

Distributor Madison has a stellar reputation for selecting good kit at low prices, and it has found another star product here. The Control tape feels like an old-school foam grip, which we really like

Weight

75
grams

because it's great for riding without gloves, with loads of cushioning and grip. It's always soft and malleable with none of the hard ridges

some patterns can cause. The Control is also really durable and showed no signs of wear, something foam grips can sometimes suffer from.

Underneath the top layer is a silicone-gripper backing to stick the tape to your bars and also add to the cushioning. It's slightly harder to apply to your bars than others on test — perhaps because the silicone layer doesn't stretch and deform quite as well. Anyone should be able to fit it securely and neatly though with a practise go or two, as you can easily strip it off and start again. Overall the Control is a good value, good feeling and hard wearing option.

Colours: Green, blue, black,

white, red, orange

www.madison.co.uk



8

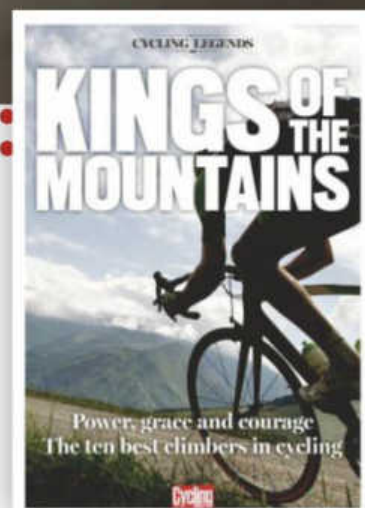
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Winter overshoes

Cold and wet conditions call for some serious footwear protection. *Paul Norman* tests four overshoes to keep you dry and warm

What?

Heavyweight overshoes are designed for winter riding. They are made of material which provides insulation in addition to keeping the rain out. They are often made of neoprene — as used for wetsuits — although other materials are also used. They should have a high, close-fitting ankle cuff to keep out rain and a reinforced sole to withstand walking and putting a foot down at stops.

Why?

Winter overshoes help keep your feet warmer and drier in cold and wet conditions. Riding with wet, cold feet is pretty miserable and the chill can quickly

spread to the rest of your body. Although water will eventually get in through the base or the ankle cuff, the insulation provided will retain warmth in your feet.

How?

When riding in the British winter, we routinely pull on overshoes before heading out. So we've put in plenty of miles in each pair to see how they shape up and how warm and waterproof they are. This has given us a good basis to judge them for comfort and how easy they are to get on and off. And we've looked for signs of early wear and tear from repeated use.

HOW WE SCORE See page 80

Sportful WS Bootie Reflex £45

With an outer constructed from Gore's Windstopper fabric, these Sportful overshoes are a good option for keeping your feet toasty this winter. There's a good amount of protection from cold winds, so even if you're wearing breathable lightweight shoes then you should still be warm. And there's also plenty of insulation; so as long as your feet are

Weight

169
grams

warm when they go in, they should stay that way for the rest of the ride.

With a neoprene construction, you're never going to keep completely dry in wet weather, but these

overshoes still do a good job of protecting you from showers and wet roads. But more importantly, they'll always keep you warm, even if the water does get through.

With regards to fit, there's a choice of five sizes, so you can always be sure that they'll be a doddle to pull on, with no loose material. As well as a good choice of sizes, there are also three colour options (black, yellow and red) too.

The only problem I did have was that the fabric around the heel was already beginning to wear away after a couple of rides, so you might struggle to get these overshoes into a second season.

8

Size tested: Large

Sizes: S-2XL

www.sportful.com

KEY FEATURES

Warm

Winter overshoes should be waterproof and well-insulated

Fit

A close fit will retain warmth and reduce risk of rub against the chainset

Sole

A good sturdy base will make the overshoes more durable for walking in



Sealskinz Neoprene Halo £40

The Halos are not your average overshoes. In addition to being made of neoprene they have red LEDs situated on each heel, which run on coin cells and are easily removed for washing. You navigate through the lights' constant and two flashing modes by just pressing the light. Sealskinz says they are visible from over 500 metres, so compared to normal reflective decals they are definitely a step up when it comes to helping other road users see you.

The basics of the overshoes are impressive too: the Halos are made to last. The Kevlar-reinforced heel and toe mean that they don't fall apart or fray after a few steps

Weight
208
grams

off the bike. The side-entry zip is good quality and has reflective bands, but a hoop at the bottom would make doing up the zip easier. When paired with thick socks the neoprene overshoes kept my feet warm on all but the coldest days.

These are top quality overshoes. The only real negatives are that they are quite a challenge to get on — the main difficulty being getting the light over the heel lugs — and like the other overshoes on test, your feet get wet in heavy, persistent rain.

9

Size tested: Large
Sizes: S-XL
www.sealskinz.com



Etxeondo Bootie Road £54.95

Etxeondo's Booties are made entirely of Gore Windstopper fabric. This includes the base, which has a series of silicone Etxeondo logos printed on it to provide grip. There's reinforced sewing around the cleat and heel holes and a couple of flatlocked seams across the uppers.

The rear zipper is slightly displaced to the outside of the heel and has reflective tape running up both sides. It's also backed with Windstopper material to keep out those chilly winter draughts.

The fit is not super-tight, so the booties are easy to get on. There's no elastication around the ankle opening, although the fit is close enough to keep out draughts.

The windstopper fabric is very soft and warm, but not all that water resistant, so in typical UK damp and cold conditions it wets out quite quickly. Nevertheless, my feet stayed warm even if my shoes were a bit damp by the time I returned from my rides.

In truth, these overshoes are probably better suited to cold, dry Pyrenean climbs, where their insulation would be ideal, rather than the damp British back roads that provided our test conditions. I was also concerned about the longevity of the fabric soles over time if they were repeatedly walked in.

Size tested: L/XL
Sizes: S/M-L/XL
www.exteondo.com

Pearl Izumi Elite Softshell £49.99

These Pearl Izumi overshoes are certainly a match for any other overshoe on test when it comes to warmth. The three-layer softshell fabric which covers much of the upper of the overshoes kept my feet warm even with the mercury hovering around freezing, and that's without some fancy thermal socks underneath.

Wet-weather performance is also on a par with the others. Best suited to light rainfall, your feet will not stay dry through more persistent or heavier stuff, but at least they'll be nice and warm at the same time.

The one area where the Elite overshoes stand out (although not for the right reasons) is the rear closure, which uses Velcro rather than a zip.

Weight
140
grams

Although this makes these overshoes easy to adjust to get a good fit, they're also really awkward to get on, occasionally leaving

a gap at the top for water to trickle down.

However, a point is clawed back for their durability, with the Kevlar-reinforced soles showing little sign of wear even after numerous walks in and out of cafes, and the reflective elements on the front and rear are good for night-time riding.

7



Size tested: XL
Sizes: S-2XL
www.madison.co.uk

What's the point of gravel bikes?

In Europe and the United States untarmacked roads are commonplace, but here in Britain we tend to have either relatively smooth asphalt or else it's bridleways. So do gravel bikes make any sense for us?

Always looking to create a new specialised sub-genre in the cycling market, many bike manufacturers feature 'gravel' or 'adventure' bikes in their 2016 ranges. At first sight these drop-bar machines look much like another relatively recent development — sportive bikes — but they feature certain details that will allow riders to head away from roads, should the mood or opportunity arise.

The gravel bike phenomenon began with models such as the GT Grade and

the Specialized Diverge last year. Essentially the idea is that if a road rider spots a gravel road or farm track and fancies going exploring, the bike underneath them will be up to the task. Yet it won't feel inefficient should you decide to stick to the smooth stuff.

The first and most fundamental thing a gravel bike needs is clearance for bigger tyres, which may be anything from 28mm to 42mm wide and should come with a reasonably general-purpose tread. Gravel bike tyres are also often tubeless so low pressures, which are

good for traction, can be used without worrying about pinch-flats.

As well as bigger clearance, gravel bike frames feature a longer wheelbase for stability and a shallow head tube angle for better control. Meanwhile, a short top tube and tall head tube allow for a more upright riding position, which is better for mixed terrain.

Cross or gravel?

In terms of components, disc brakes are prevalent, with thru-axles only a little way behind. And because gravel bikes are

Unmade roads are the gravel bike's natural territory





Plenty of frame clearance minimises mud build-up

designed to be ridden on the road as well as off of it, they need a wide range of gears, generally using compact or semi-compact double chainsets.

But with British riders often facing a choice of either relatively smooth tarmacked roads or very rough bridleways — as opposed to the unmade roads widespread elsewhere in the world — is this halfway house between a road bike and cross bike even necessary? The winner of the opening two rounds of this season's National Trophy cyclo-cross series Hannah Payton isn't convinced.

"Personally, I'm not sure about gravel bikes. I do think the idea of adventure riding and people exploring areas that are inaccessible on a road bike is increasing, which is really great to see. So I can understand why

manufacturers might want to introduce this kind of model into their ranges. But in my opinion a cyclo-cross bike is perfectly adaptable to do all that already," Payton insists.

Let's look at the benefits of gravel bikes first, the most obvious of which is frame clearance. "The clearance on a road bike isn't as big as a gravel bike or a cross bike. Having clearance between tyre and frame helps to deal with any build-up of mud or off-road detritus," adds Payton.

"Also, frame clearance dictates your tyre choice, which in turn will affect how suitable a bike will be off-road. Making sure you have a good sturdy tread is important and being able to run low tyre pressures helps too. When I race I use tyre pressures of 15 to 20psi. Obviously gravel bikes won't use tyre pressures that low, however some gravel bikes come with tubeless tyres, which can run

very low pressures should you want, so that's good."

Tyre compatibility isn't the only thing gravel bikes have in common with cyclo-cross bikes. "My cross bike has higher handlebars like a gravel bike because that increases control and it's a lot more comfortable," explains Payton.

"However, my cross bike's gears are different to those on road and gravel bikes. The ratios are similar to a road bike but I only have a single chainring rather than a double chainset for simplicity and security."

The issue of braking is interesting, too. Bike manufacturers have invested a lot in disc brake technology, yet changing UCI regulations means it's unlikely disc brakes will be promoted by the most powerful marketing tool in road cycling: the pro peloton. Would it be cynical to suggest that a burgeoning gravel bike market could be a way to recoup something from that disc brake research and development?

The disc debate

Payton is far too diplomatic to comment, but her personal choice of brakes is telling. "I use TRP cantilever brakes. My cross bikes are all Kinesis Crosslight CX Race and they can accept disc brakes

but I have decided to fit them with cantilevers because they're lighter than disc brakes.

"Also, I very rarely need to actually come to a stop off-road, most of the time I just feather the brakes to knock off a bit of speed.

Personally I think that disc brakes are just far too aggressive and as soon as you ride them in mud or sand they make horrific noises."

Brakes also lead us on to axle choice. "Because I don't run disc brakes it also means I don't need to use thru-axles," says Payton. "In any case, quick-releases are much easier to use if you need to whip out your wheel if there's a problem."

No matter how good your tyres, there's always a risk you might need to remove your wheel when you venture off the beaten track.

So, if you really want to ride on and off-road there is an argument to say British riders might be better off opting for the tried and tested cyclo-cross bike. Certainly that is all that Payton needs: "For me it's great. Last season's cross racing bike is this season's winter-training road and gravel bike. After all, the whole point of a cross bike is there in its name — it offers cross-discipline performance."

Industry view

Hannah Payton



Elite cyclo-cross racer

CA: How could you turn a road bike into more of a gravel bike?

HP: Obviously the first thing would be to fit tyres with better grip, although road bikes may be hampered by frame clearance. Having said that, you could just try off-roading on your current road bike and see what happens — slipping and sliding on thin tyres is great fun anyway. It's actually a lot easier to turn a cross bike into more of a road-orientated bike: simply fit smoother tyres rather than super-grippy or knobbly cyclo-cross tyres.

CA: What other things help when riding off-road?

HP: Fit drop handlebars with a shallower drop on them. Often if the route gets a bit technical you'll want to be on the drops because you have better braking control and you can distribute your weight better over the back wheel. Whereas on normal road bike the bars would be deeper to help get in a aero position, that's not what you want off-road and a shallower handlebar drop means that you won't be too low.

CA: Are there any bits of kit that you find help when riding off-road?

HP: I use Crank Bros Eggbeaters pedals. For me they're just the best pedals because they have four points of entry and they don't get clogged up with mud. In fact, don't forget that whatever type of bike you use, as soon as you head off-road, everything can get very muddy and bike maintenance will become really high. So you'll probably be investing a lot more in cleaning kits and even things like replacement cables.

Headset maintenance

James Bracey talks us through one of the most simple, yet often overlooked, adjustments that's absolutely crucial to your safety



Despite its key role in the whole riding experience, the headset remains one of the least understood areas of bike maintenance for a large number of riders. It's fair to say we all take steering for granted: you pull on one side of your handlebars, and your bike heads off in that direction, usually without complaint. But what if it stops steering so smoothly? How do you make things right?

During my time working in a bike shop I would say that I have lost count of the number of bikes that have come in with forks precariously knocking in the frame due to a loose headset — and quite often the rider would be totally unaware of it. Riding your bike with a loose headset (or even one that is too tight) can result in damage to the bearings and ultimately could lead to irreparable damage to the frame or forks or, in very extreme cases, catastrophic failure. So it's extremely important to know what you are looking out for and how to solve any problems you might find — for the sake of both your bike and yourself.

Time taken
25
MINUTES



JAMES BRACEY
CA MECHANIC

Self-confessed bike geek and senior bike-fit technician at Pedal Heaven in Fleet, Hampshire, James rides for Pivot Boompods RT and has raced across a variety of disciplines for nearly 25 years.

Tools

4,5,6mm hex/
Allen keys (specific
headsets/stems
might need Torx or
other sizes)

Plastic/rubber/
wooden mallet

Teflon grease,
e.g. Finish Line

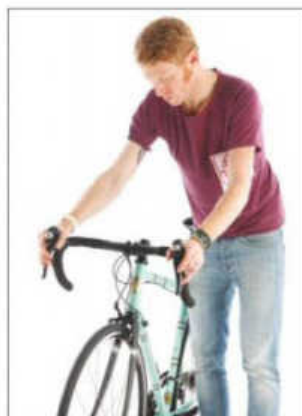
Cloths for cleaning

Spray degreaser

Jargon

Top cap and bolt:
*The flat plate/bolt
used to preload
the headset*

Steerer tube: *The
uppermost part
of the bicycle fork
that goes through
the frame to
allow steering*



1 HEADSET CHECK

To check if your headset needs adjusting or the bearings need servicing/replacing, first turn your handlebars from side-to-side. Does the movement feel rough or stiff? If so, your headset will need to be stripped. If the bearings feel smooth it's time to check the headset adjustment.

■ While holding the front brake on, try rocking the bike back and forward. If there is a knocking feeling through the bars your headset might be loose. To make sure it is the headset that is to blame, wrap your hand around the junction between frame and fork and rock it again — you will feel movement between the two if it is the headset.



2 HEADSET ADJUSTMENT

To stop the movement in your headset first you must loosen the two stem bolts. (The stem clamps the headset tight so nothing will happen if you don't undo these first!)

Then, very gradually tighten the top cap bolt until there is no more play in the headset — keep checking by rocking the bike. Stop when there is no more unwanted movement. If the steering feels stiff you have tightened the top cap too much. Undo until the steering feels smooth but there is no play.

■ When you are happy with the adjustment, position the stem back in line with the front wheel and tighten the stem bolts (ideally with a torque wrench) to lock the headset in place.

Tip

When tightening stem bolts, tighten each one a half/full turn alternately — this will even the clamping tension and prevent potential damage.

3 DISMANTLING THE HEADSET

To replace the headset bearings first of all remove the top cap, bolt and any spacers above the stem completely.

■ Loosen the stem bolts and carefully remove the stem as the fork might drop through the frame (hold on to the fork to stop it sliding out of the head tube) — let the handlebars gently rest next to the frame.

■ Remove any spacers that were under the stem (make a note of how many were under/over the stem) and the headset/bearing cover and any thin washers on top of the bearing.

■ There is a wedge shaped spacer called a compression ring holding everything together that might stop the fork from dropping down through the frame — if it is very tight, take a wooden or plastic mallet and tap the top of the fork to release the wedge. Slide the compression ring and any seals off the steerer tube and slide the fork out of the frame.

■ Remove the bearings from the frame — there should be one at the top and another at the bottom of the head tube (the bottom one may well be resting on the fork crown).

■ Clean any old grease and dirt out of the frame and bearing seats using cloths and a light spray degreaser.

■ Wipe the bearings clean — don't use degreaser! If they feel smooth and in good condition retain them. If you are replacing the bearings make sure you replace like-for-like with the correct size and seat angle.

Tip

Remove the front wheel to reduce the chances of the fork dropping out too quickly.



4 REPLACING BEARINGS

■ Apply clean grease liberally to the bearing cups in the frame and fit/refit the bearings in the same position — normally the chamfered edge facing into the frame.

■ Wipe more grease on top of the bearings — this will help prevent water and other contaminants from getting to the bearings easily.

■ Refit the parts taken off in the correct order — compression ring and seal, bearing cover, headset spacers (make sure you put the right number under the stem), stem, headset spacers (if any) and top cap and bolt.

■ Follow instructions for adjustment (see above) and wipe off any excess grease.

Tip

Bearings come in a range of sizes. Normally the dimensions are etched into the side. Take the bearing/s to a bike shop if unsure.



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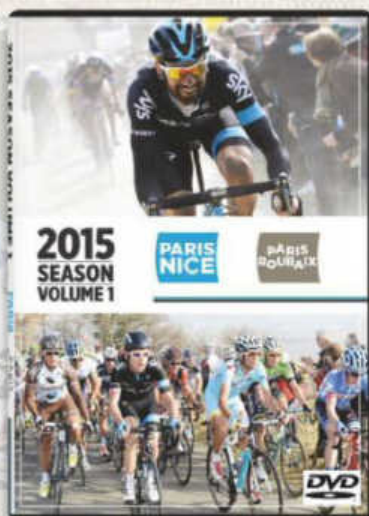
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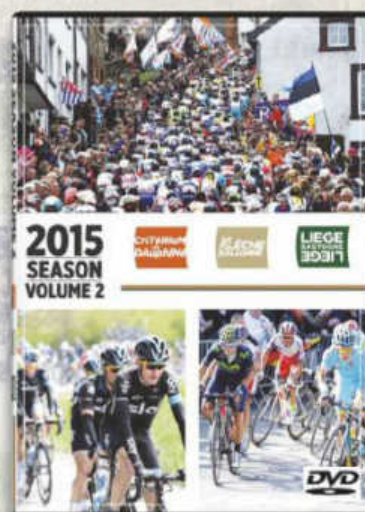
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‘Less is best’ for ageing

Could older cyclists turbo-charge their fitness by doing fewer, yet harder training sessions?

David Bradford examines a new study on high-intensity interval training

Veteran cyclists could benefit from training less frequently but at a higher intensity, according to research from the University of Wales Trinity Saint David.

Physiologist and World Masters Track Championships medallist Dr Peter Herbert devised a study in which two groups of male participants aged 56-74 — 17 trained cyclists, and 22 sedentary (pre-conditioned just enough to safely take part in the trial) — undertook six weeks of training involving one session of six 30-second sprints every five days. Each session lasted 18 minutes, comprising just three minutes of high-intensity work and 15 minutes of recovery. Each participant racked up just 27 minutes of exercise over the six weeks.

At the end of the trial, among the trained cyclists, average VO2 max was shown to have improved from 40.6 to 43.6ml/kg/min, and average peak power had risen from 808.5 to 879 watts. Body composition was also improved, with body fat having fallen from an average of 15.9 to 13.3 per cent, and lean body

mass having risen from an average 66.9 to 69.5kg. Similar improvements were recorded for the sedentary participants.

These are clearly significant fitness gains, but do they justify switching to shorter, more intense training for all older athletes? *CA* contacted Dr Herbert to find out more about his research. We began by asking why he thinks high-intensity interval training (HIIT) sessions are particularly effective for older cyclists.

“It’s about recovery,” he said. “As we age, recovery from exercise takes longer. Many older athletes often try to keep training as they did at a younger age — two or even three high-intensity sessions each week — but their muscles need longer to recover. My research has shown that HIIT performed once every five days can cause significant improvements.”

Given the very short nature of the HIIT sessions, are they appropriate for cyclists targeting longer-distance events?

“Longer-distance cyclists who wish to be competitive still need to train specifically for

their event,” he explained. “I would suggest having at least two or three long easy cycles between HIIT or threshold-type training. Effects on muscle are more severe from short, maximal efforts, so longer recoveries from HIIT are essential. Of course, responses may vary between different individuals.”

More pain, more gain

Isn’t there an added injury risk from the higher intensity? “HIIT causes much greater discomfort than longer duration training, but this is offset by the longer recovery time it allows,” Herbert said.

Finally, we wanted to know whether younger cyclists can also benefit from HIIT: “Yes, definitely, although many of those aged under 50 won’t need the full five-day recovery between sessions. This means more sessions, therefore even greater fitness gains.”

Herbert summed up his findings by telling us that too few veteran athletes make allowances for the ageing process, and that “sometimes less really is best”.



HIIT: time-efficient training for the older cyclist



Inside the pain cave

Keep it clean

Hold your f***ing line, you t***er!" It's a not unfamiliar outburst in, say, a crit race. Cycling + adrenaline + testosterone = profanity. Not always, but sometimes.

Deep in the pain cave, the formula also holds good, as indoor cycling is becoming more social and less solitary.

Profanity has become a big issue on Zwift. Now, I'm no prude. I drop the f-bomb in real life more often than is perhaps strictly necessary.

But it upsets me in the virtual world of Zwift. Why? Well, the words appear on the screen as the psyched-up virtual racers hammer the keyboard, displaying the results on the group text system.

Their f-bombs explode through the whole community — everybody who's riding sees it. That can, and does include, juniors and casual riders pootling round who've no idea that racing wreaks such changes to your emotional stability. That's just plain rude.

And one more thing: how the devil do these cussers find the coordination to hammer away at 5W/kg, sweat buckets and type at the same time? It beats me.

It's definitely worse when the big races howl through Zwift-land, with 50 or 60 riders in a pack, jockeying hard for position and desperate not to get dropped. And if you're shelled out the back because your PC has thrown a wobbler, I can understand the frustration.

But it may be an idea to resort to the traditional method — using the vocal chords, rather than the keyboard, to express it.

Come on guys and girls, let's keep virtual cycling clean.

Simon Schofield rides the turbo for fun and won't have a bad word said about it

What's the most doped sport? Not ours...

Judging by figures recently released by the Movement for Credible Cycling (MPCC), cycling no longer deserves to be branded as the sport with the worst doping problem. In fact, it isn't even second or third in the list of most doped sports of 2015 — it lies in a relatively righteous fourth place, with fewer positives than athletics, weightlifting and baseball.

Twenty-one riders were caught doping last year which compares very favourably to athletics which accrued a litany of 62 positive tests in its blackest year in recent history. Indeed, it appears that athletics is going through a crisis comparable to that suffered by cycling in the late Nineties.

Meanwhile, there are strong indications that cycling is successfully cleaning up its act. Of the 21 positives recorded in cycling

in 2015, only eight were WorldTour and Pro Continental-level riders. The highest-profile among those caught were Luca Paolini (Katusha), Tom Danielson (Cannondale-Garmin), Lloyd Mondory (Ag2r La Mondiale) and Davide Appollonio (Androni Giacattoli). Of course, cycling is not yet out of the woods in terms of doping, but there are grounds for cautious optimism.

Just one place lower than cycling on the list of positives was football, with 20 players caught in 2015. As recently as November, Arsenal boss Arsene Wenger reiterated his concern that his team has "played against many teams" in which players are using performance-enhancing drugs, having previously voiced concerns about inadequate testing. Cycling, for the time being at least, appears to be setting a progressive example.

Recommended

SiS WHEY20

Where? During or after a ride

What? Whey protein gel

Despite other companies releasing protein gels over the past year, they haven't been made from the most popular source of protein on the market. SiS WHEY20 is the first ever 100 per cent whey protein gel, providing 20 grams of whey protein, similar to the protein content found in shakes and bars. Its gel design means it can be consumed immediately after a ride or taken with you on the bike without the need of mixing water in a shaker. Available in both lemon and strawberry, the 78ml gel may look large and perhaps a little bit intimidating to consume all in one go. But the flavours cannot be faulted and its dairy-based ingredients make it one of the best tasting gels out there.

£23.99 for a pack of 12 gels www.scienceinsport.com



Muc-Off Luxury Warm Up Cream

Where? Before you ride

What? Warm-up cream

Why? As the temperatures start to drop, it is important to make sure that you are prepared for whatever the British winter throws at you. Even if you add on the extra layers, your muscles will still be cold before you head out for a ride and without a proper warm-up it can leave you vulnerable to injury.

Muc-Off's Luxury Warm Up Cream means you don't have to head out for a long ride with your body completely unprepared for the cold weather.

Using a mix of natural and skin-friendly paraben-free ingredients, the cream warms the muscles by gently heating the skin. This doesn't mean you should exclude a warm-up from your long ride routine, but it might make those cold mornings a little more bearable.

£15 for 150ml tube www.muc-off.com

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This month **SPRING** **INTO** **ACTION**

Spring has finally sprung and, if you're wondering where all your volume is, don't panic. During the winter you will have been building a strong base of general aerobic training load. Now is the time to use that fitness as a springboard for the first of two months focusing on high-intensity interval rides. The aim is simple: to use the sharp change in training stimulus to boost your riding to a higher level that we can then capitalise on during the final months of specific training in the run-in to your summer target event. Don't worry if your winter training was sparse, start this now and you will still be firing on all cylinders ready for your first event.



USING THE TRAINING PLAN

First choose your plan. The Challenge Plan is for riders building up to mid-distance sportives, events where you will be riding continuously for up to five hours. The Epic Plan is for those targeting 100 miles and beyond, in events that may also feature large amounts of climbing. So far so normal, but these plans are different. We don't tell you exactly when to do each ride. Instead we're going to give you the tools to fit the rides into your life. Just try to do similar rides on the same days each week, keep hard rides apart, and make sure you always take one day off riding each week.

Key sessions for this month



GIBALA INTERVALS

Named after one of the researchers into interval training's effect on endurance and aerobic fitness, these simple, all-out one-minute efforts seem to have an effect on glycogen storage, muscle enzyme activity and other signs of increased fitness more typically seen with long periods of endurance training.



VO2MAX INTERVALS

These longer, hard intervals are designed to improve cardiac output and your body's ability to deliver oxygen to the muscles by (among other things) getting your heart to pump very nearly as fast as it can. Repeated intervals like these allow you to spend far longer working at your VO2Max than if you simply tried to ride at it for one, longer block.



LONG RIDE SWEET SPOT

The blocks of Zone 3b move from the hills to the flat, which slightly increases their difficulty even before we start to increase their length and play with their timing to improve both aerobic fitness and overall fuel efficiency.



STEADY STATE ZONE 2

It's important to maintain some basic riding volume during this phase — it'll keep your underlying aerobic fitness firmly in place and provide an antidote to the extreme focus that proper interval sessions really require.



RECOVERY RIDES

You won't often find very easy rides in these plans because, when time is tight, it's almost always better to do a ride that does more than burn a few calories. But in a block like this, following each interval session with an easy spin could actually help you recover.

GAUGING YOUR EFFORT

Improving your fitness and increasing your speed has a lot to do with doing the right training, often enough, at the right time. That means knowing how hard to work — and how hard you're working is key. The rides in our plans are described in terms of time in different zones. Hold the required level as evenly as possible for the time required and you'll know you're doing the right work.

Zone	Effort	You can...	%MHR	%FTP (Power)	%FTP (Heart Rate)
1	Easy	Speak, sing and even dance!	65% or below	up to 55%	up to 68%
2	Slow	Chat freely	around 70%	56-75%	69-83%
3a	Steady	Just about hold a conversation	around 75%	76-85%	84-90%
3b	Brisk	Speak in single sentences	around 80%	85-90%	91-94%
4	Threshold	Utter short phrases	around 85%	91-105%	95-105%
5	Hard	Only get out the odd word	around 90%	106-120%	106% or more
6	Very Hard	Grun! Gasp! Pant!	N/A	121-150%	N/A

Terminology

Maximum heart rate

Heart rate is an indicator of how hard your body is working — the higher the heart rate, the harder you're working. Once you know your maximum heart rate (MHR) you can work out your own personal training zones — you'll need a heart-rate monitor.

You can use the following formulae to predict your MHR without even turning a pedal:

MEN: 214 – (0.8 x age)

WOMEN: 209 – (0.9 x age)

For a more exact figure, use this simple test:

■ **Ride Easy for 15-30 minutes, finishing at the bottom of a long, steady hill.**

■ **Ride up the hill for five minutes at a nice, brisk pace, then coast back to the bottom.**

■ **Climb the hill again. Start at the same brisk pace, but this time increase your effort every 30 seconds. When you reach the point where you can push no harder, stand on the pedals and sprint until you have to stop.**

■ **Coast back to the bottom and repeat step three again before riding home.**

You'll probably hit your MHR somewhere towards the middle of the third ascent. (You will need a heart-rate monitor that records maximum heart rate to be able to perform this test properly).

Once you have established your MHR, simply use the MHR column in the table below to set your own heart rate zones.

Functional threshold

Your functional threshold (FT) is the best average effort you can possibly manage in one hour of non-stop riding. Thankfully, you don't need to suffer for an hour to work this out. Instead, use the following test ride (devised by Hunter Allen of Training Peaks) to calculate a 'real-world' FT:

■ **Ride Easy for 20 minutes.**

■ **Do 3 x 1min at a high cadence (120rpm) in a small gear with one minute Easy after each.**

■ **Ride Easy for a further four minutes.**

■ **Ride as hard as possible for a further five minutes.**

■ **Ride Easy for 10 minutes.**

■ **Ride as hard as you can for 20 minutes.**

Aim to finish the 20 minutes having given absolutely everything you have. (You'll need to be able to record an average power or heart rate for the 20-minute all-out effort.) Afterwards, work out the average power or HR for that final 20-minute effort, and multiply that number by 0.95. This will give you your FT, which you can then use to calculate your training zones, using the percentages in columns five and six, depending on whether your number is a heart rate or a power rating.

CYCLING ACTIVE
★ ★ ★
**TRAINING PLAN
CHALLENGE**
DISTANCE
MARCH

LONG RIDE SWEET SPOT

Almost an hour of sweet spot and a fast mid-Zone 3 finish make this ride a challenging workout



This month we'll be building up both the total time you spend at sweet spot and the length of time you can stay at sweet spot

without needing a recovery. After an hour of Zone 2 riding, do a series of sweet spot blocks with equal length recoveries. Do four 10-minute blocks in the first week, three 15-minute blocks the second week and two 25-minute blocks the third. Add a little extra endurance building to the end of the ride by pushing up into Zone 3a for as much of the final hour as possible.

On the fourth weekend, you should replace this ride with a test event. Choose a manageable distance, and ideally an event you've done before, then climb at sweet spot and ride the rest of the time in Zone 2, and see how your performance compares to what you've managed before.

TIP

A short circuit will make it easier to pace your blocks evenly

How many times this month

4x

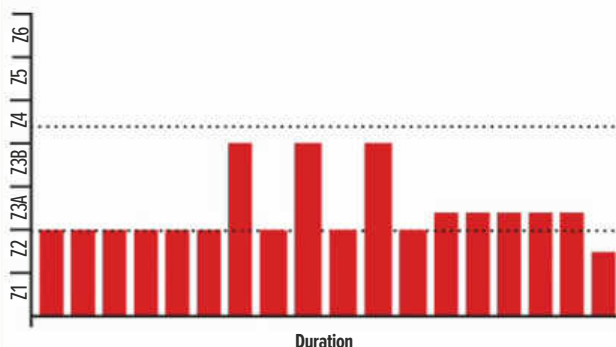
Duration (hr)

3.5-4

Intensity

85%

FUEL REQUIRED	HOW MUCH?	WHEN?
Drinks bottles	3-4	Sip every 10min
Energy gels	2 (optional)	Just in case
Energy bars	2-3	Every hour
Recovery drink	1	ASAP



GIBALA INTERVALS

It only takes a minute to get a lot of work done



The main block of work here comprises 8-10 one-minute all-out efforts (Start with eight and add one extra per week). Originally, each interval is followed by just 75 seconds of easy spinning recovery, but we've increased that to two whole minutes. This means that, if you decide to do the intervals as hill repeats you'll have time to stop, turn safely, descend back to the start, and turn again without rushing. Start your ride with a long, progressive warm-up. Build slowly from low Zone 2 to mid-Zone 3 over the first 15 minutes, then do another five minutes at the top of Zone 2. Follow that with five minutes building gradually from Zone 2 to Zone 4, then drop back to the top of Zone 2 again for five minutes before you start your first interval. And, after the last effort is done, spin home in Zone 2.

The key to this session is having the confidence to ride the intervals really hard. After all you never need to do more than 10 of them. You don't want to attack the start of each absolutely as hard as you can, but do 'jump' into them, then sit and empty yourself by the end of the minute. It's generally best to keep your cadence up above 90rpm in the intervals, but the effort is the most important thing, so choose gears that give you the best chance to put out lots of power.

TIP

If you are feeling tired and heavy-legged, have a strong dose of caffeine before heading out

How many times this month

4x

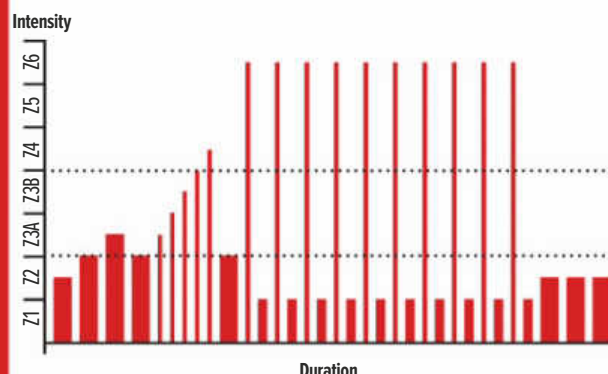
Duration (hr)

1.5

Intensity

100%

FUEL REQUIRED	HOW MUCH?	WHEN?
Drinks bottles	1	Sip every 5min
Energy gels	0	
Energy bars	0	
Recovery drink	1	ASAP



VO2MAX INTERVALS

A lot about this ride will seem eerily familiar



Like your Gibalas these three-minute intervals are best done as repeats on a climb — not least because you can challenge yourself to reach the same point by the end of each.

The recommended warm-up for this ride is exactly the same as the warm-up for the Gibalas, too — 20 minutes just below and just above the top of Zone 2, a five-minute ramp up into Zone 4 and a final five minutes at Zone 2 before the first interval. Even the recovery after each interval is similar — easy spinning for three minutes until the start of the next effort.

The intervals themselves need to be handled a little differently, however. Instead of jumping into them, step your effort up to what you expect to be able to hold, and then try to push your heart rate up and up so that you finish the interval with a heart rate that's just 5-10 beats below your max. If you pace it right, the first 30 seconds won't feel too bad, then things will quickly begin to bite so that by then end you're having to fight to maintain your output. If you're pacing with power, aim to do the intervals at the best power you can hold for five minutes.

Start out with four three-minute intervals in the first week, and add an interval each week up to a maximum of six.

TIP
A hill that gets steeper towards the top can force you to keep your effort high.

How many times this month

4x

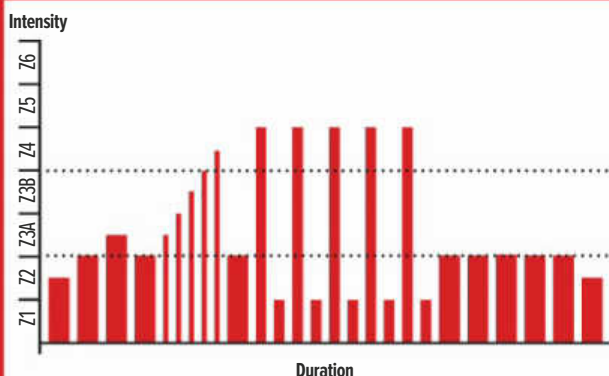
Duration (hr)

1.5

Intensity

95%

FUEL REQUIRED	HOW MUCH?	WHEN?
Drinks bottles	1	Sip every 5min
Energy gels	0	
Energy bars	0	
Recovery drink	1	ASAP



EXTRA
SESSION

RECOVERY RIDES

And... relax (up to a point!)



Easy recovery rides can be tricky — particularly if you've got into the habit of solid, steady riding over the winter —

because they're so easy to overdo.

Head out for a ride of between an hour and an hour and a half on a route you enjoy that isn't too challenging, and spend as much of the ride as possible in Zones One and Two. Try to keep the cadence above 90rpm, to make the most of your legs' role as a musculo-skeletal pump that drives blood, oxygen and nutrients around your body, but don't strain to maintain a high turnover.

If you feel fresh, you can include two or three harder bursts up and over a couple of hills or to deal with traffic, but generally keep a real lid on everything. Aim to get home feeling fresher than you did when you set out.

TIP
Hydration matters. Drink a litre of weak electrolyte drink during this ride

How many times this month

6-8x

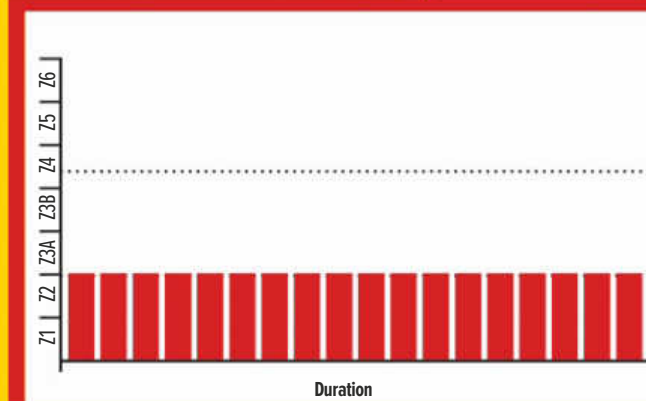
Duration (hr)

1-1.5

Intensity

60%

FUEL REQUIRED	HOW MUCH?	WHEN?
Drinks bottles	1	Sip every 5min
Energy gels	0	
Energy bars	0	
Recovery drink	1	ASAP



What is?

Intensity

Intensity is a hard concept to pin down. Is a 90-minute Z2 ride with two 20-minute Z3b blocks easier or harder than an hour of easy riding that contains six all-out 30-second sprints? In this plan, intensity is a guide to how hard the hardest efforts will be — the higher the percentage the more respect the session needs and the more likely it'll be you'll need to follow it with an easy or rest day.



LONG-RIDE SWEET SPOT

It's a favourite and a classic: the mighty endurance sandwich



Start your ride with 10 minutes of Zone 2, then take your effort straight up to Zone 3b and hold that for the next 20 minutes. Once that's done, drop back

to the border of Zone 2 and Zone 3 and stay there until about 40 minutes from the end of your ride. At that point, take your effort back up to Zone 3b again, and stay there for 30 minutes, before finishing the ride with 10 minutes of spinning to cool down. Each week simply increase the length of your Zone 3b blocks by five minutes each, so you end up at 30 minutes and 40 minutes in the third week.

For the fourth week of March, you can replace this ride with a minor test event.

TIP

If you can, arrange your route so that you do the second block with a tailwind

How many times this month

4x

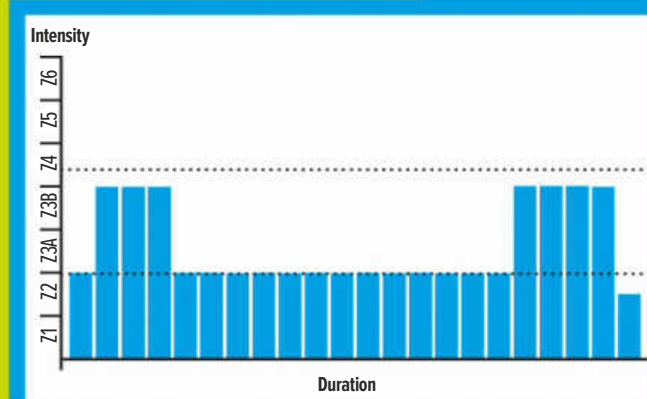
Duration (hr)

4-4.5

Intensity

85%

FUEL REQUIRED	HOW MUCH?	WHEN?
Drinks bottles	3-4	Sip every 10min
Energy gels	2 (optional)	Just in case
Energy bars	2-3	Every hour
Recovery drink	1	ASAP



GIBALA INTERVALS

Short, and not terribly sweet, these intervals will change your definition of hard riding



The first half hour of these rides are devoted to warming up by working through two 'ramp' efforts where you gradually increase your effort. The first ramp is very gradual, taking you from low Zone 2 to low Zone 3a over 15 minutes. The second is faster, building from

Zone 2 to Zone 4 in just five minutes. Each ramp should be followed by five minutes of Zone 2 riding and once both are done you're ready to start your efforts.

The first time you do this session, aim to complete just eight one-minute efforts with a two-minute recovery after each. Stay seated, keep your cadence above 90rpm, and if you're doing the intervals on the road, consider doing them up and down a climb to give yourself the best chance of hitting really high outputs. Each week after that add just one extra effort, up to a maximum of 10.

You'll probably have noticed that the introduction to this session on page 103 describes the intervals as all-out efforts. You won't be able to pace by heart rate, because the intervals are short, so divide each one into three: a short attack that gets you started, a middle section where you try to empty yourself and a final five-10 seconds where you're simply hanging on to maintain your speed or power. Dig deep, and take the recoveries really easy.

TIP

If you need to shorten this session, shorten the start of the warm-up, not the cool-down

How many times this month

4x

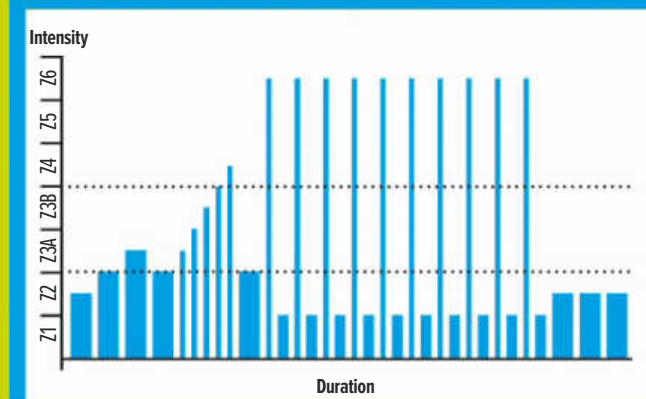
Duration (hr)

1.5

Intensity

100%

FUEL REQUIRED	HOW MUCH?	WHEN?
Drinks bottles	1	Sip every 5min
Energy gels	0	
Energy bars	0	
Recovery drink	1	ASAP



VO2 MAX INTERVALS

Another set of intervals to push your performance to a new, higher level



The warm-up, cool-down and overall shape of these rides is identical to the Gibalas. All that changes is the length of the intervals.

Like the Gibalas you need to be prepared to push hard. You should be getting within five-10 beats of your maximum heart rate by the end of the third minute of each effort. Like the Gibalas, we'd recommend doing them as repeats up and down a climb. Pushing against the gradient will help you keep your effort high, and repeating the same climb will give you a target to chase as you try to get to at least the same point with each effort. You'll have to U-turn at the bottom and top of the climb to start and finish each effort, though, so don't choose a busy road.

One thing that seems to determine the impact of these intervals is how long you spend at VO2 max. And, because it takes time for your body to reach that level with each interval, it's most efficient (though far from comfortable) to progress this session by extending the length of each interval as the weeks pass. Start with five three-minute intervals, then add an extra minute to both the effort and the recovery each week after that so that you end up doing 5x4 in week two and 5x5 in week three. In the last week of the month, drop back to 5x3 again — especially if you're planning to ride a test event that weekend.

TIP
Keep your cadence high and sit up in the saddle to help maximise your output

How many times this month

4x

Duration (hr)

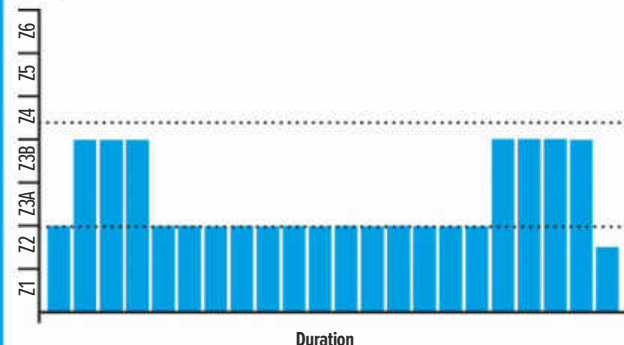
1.5

Intensity

95%

FUEL REQUIRED	HOW MUCH?	WHEN?
Drinks bottles	1	Sip every 5min
Energy gels	0	
Energy bars	0	
Recovery drink	1	ASAP

Intensity



EXTRA
SESSION

STEADY STATE ZONE 2

And now for something completely obvious

Nothing about these rides is going to be unexpected. Each one's a couple of



hours of simple, straightforward Zone 2 riding at a cadence of 90-95rpm. At a

pinch they could even be broken into two one-hour rides on the same day, which might work well if the improving weather means you want to start commuting to work by bike.

Exactly how you fit them into your weeks is up to you, but you'll probably get the best returns if you do the first the day after your long ride, because the fact that your glycogen stores will be low should give it extra endurance value, and do the second on the day in-between your two interval sessions as an 'advanced recovery ride'. Put rest days before your first interval session and after your second, and you've got a pretty balanced week.

FUEL REQUIRED	HOW MUCH?	WHEN?
Drinks bottles	1-2	Sip every 10min
Energy gels	0	
Energy bars	0	
Recovery drink	1	ASAP

TIP

If you're doing these rides in the morning, having breakfast beforehand will support your harder rides

How many times this month

6-8x

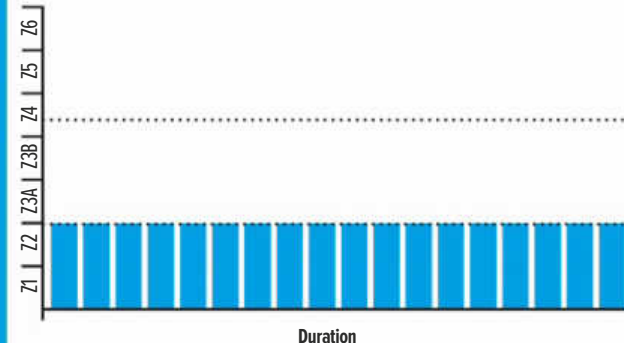
Duration (hr)

2

Intensity

75%

Intensity



What is?

VO2 max?

Your VO2 max is your body's maximum rate of oxygen consumption. It can be stated as an absolute value (e.g. 4.86l/min), giving an idea of the size of your engine, or relative to body weight (eg 69.4ml/kg/min). Its real strength for coaching comes when it's tied to a power output and compared to powers at other intensities. Someone who can only hold 50 per cent of VO2 max for an hour might simply need more exercise, while someone who can hold 90 per cent might be better off trying to raise their VO2 max ceiling with interval work.



USING POWER



TRAINING WITH POWER

If you really want to improve your cycling performance, understanding training zones and how to use them for maximum fitness gains is absolutely essential. Vicky Ware explains...

Power meters are becoming more affordable and number crunching ride data easier and more fun with tools like Training Peaks and Strava. Even if you're not interested in spending hours poring over data analysis, a little could seriously help your pacing and improve your finishing time in time trials and sportives, as well as aiding your training. If you do want to analyse the numbers there is certainly plenty of opportunity to do so and the more you learn the more you'll reap the rewards of training with power.

What is a power meter?

A power meter is fixed to your bike, usually as part of the crank or in the hub of the rear wheel. It measures the power you put into your bike via strain gauges. As the gauge deforms when you press on the pedals, the electrical resistance through it alters, upsetting the balance through an electrical circuit. This is how the power meter detects how much force you're applying to the pedals.

How quickly you turn the crank and how much force you input goes together to allow the meter to detect your power in watts, which is displayed via a handlebar-mounted computer such as a Garmin. Unlike heart rate, power output doesn't change based on variables such as fatigue or illness. Similarly, wind direction and the ambient temperature have no effect on your power output, meaning you get an objective and quantifiable measure of your performance.

What are the key benefits of training with power?

Matt Bottrill is head coach at Matt Bottrill Performance Coaching and a well-seasoned athlete himself — having won the British National 10, 25 and 50-mile time trial championships along with the RTTC Circuit Championship.

He explains: "Power meters don't lie. It's simple, the numbers on the screen show the power you are producing at that moment, regardless of conditions and other factors such as fatigue. Heart rate can vary so much it's not always a reliable number to train to, meaning you may not be getting the best training effect."

Emma Grant rides for Team Colavita Bianchi and uses a power meter in training: "Heart rate is a variable impacted by so many factors, hydration, caffeine and over-training being a few. Providing you calibrate your power meter (see panel) you can't really question the data."

Should you get one?

Bottrill has some sage advice: "If you're thinking about buying [a power meter] there are a few things you should think about first, as even the cheaper ones are still a big investment. How will you use it? Do you know how to use it? Do you know what the numbers mean? If the answer to these questions is 'no' and you aren't prepared to either find an expert to guide you or do the research yourself then it's probably not worth spending the money."

If the answer to those questions is yes, or you are prepared to learn, don't feel you have to wait to get one. Traditionally using a power meter is the next step after getting used to training with a heart rate

monitor. Although this is still a valid trajectory, starting with a power meter will mean you've got a huge store of data to look back on in future and can see exactly how much you've progressed.

Is heart rate still important?

There are clear benefits to training with a power meter but it's not time to ditch the heart-rate monitor just yet. The fact that heart rate varies based on factors other than how hard you're pushing on the pedals is one of the benefits to recording it.

"Looking at the relationship between heart rate and power is invaluable, particularly when monitoring fatigue levels in training, and gains in fitness," explains Grant. By comparing heart rate to power you can see whether you're fatigued, gaining fitness or being affected by illness or even hot weather."

This benefit increases the longer you ride with both power and heart rate, as you learn what a normal heart rate response to training is for you. A higher heart rate for a given power, or a depressed heart rate in some people, may indicate you're coming down with a cold or need more recovery.

You'll also be able to track your fitness as you slowly ride a higher power for a given heart rate, which can also tell you if you need to re-test your fitness: "Heart rate can be used to indicate if power training zones are correctly set and if a threshold power test needs to be carried out (see panel)," explains Bottrill. "It can also be used as an indicator of fatigue or illness and so assists in making sure overtraining doesn't occur."

Use in training: getting coached

If you have a coach, or are thinking about getting one,



TRAINING WITH POWER

Functional Threshold Power (FTP)

Doing a functional threshold power (FTP) test will let you know what your aerobic power capability is, meaning how hard you can ride without producing so much lactic acid you have to stop. It's an effort you can sustain for up to an hour. Once you have your FTP number you can work out training zones, and have a benchmark figure by which you can compare future FTP tests to see if you're getting fitter.

Grant explains: "Training with numbers devised from field tests can make sessions more productive. It can be motivating to have a target power for a particular interval; it leaves out the guesswork of perception of intensity."

How to do the test

Warm up for at least 20 minutes. Your warm-up is really important to get the most out of yourself in a threshold power test, but it will differ depending what you prefer as an individual and how fit you are. One benefit of doing these tests is finding out which warm-up works best for you, so you can use it before competitions.

Press the split timer on your computer, ride as hard as you can maintain for half an hour and press the split timer again. Getting the most power out of your legs in half an hour is a skill that requires pacing. You might find if you repeat a power test the next time you'll get a higher result just from knowing how to pace the test.

Analysing the test

Take your average power (not normalised) from the last 20 minutes of the 30-minute test. 95 per cent of this number is your FTP.

If you rode 300 watts for 20 minutes, your FTP is $300 \times 0.95 = 285$ watts.

Your power to weight ratio is your FTP divided by your weight in kilograms so for an 80kg rider this would be: $285/80 = 3.56$ w/kg

A power test is a hard training session in itself, and takes a lot of mental strength. As such you probably don't want to do them too often. Picking a road with no traffic lights or junctions is essential. Finding a climb with a consistent gradient that takes you at least 30 minutes to climb is perfect, but not many of us are lucky enough to live near such roads. An

alternative is finding an out and back 25-mile time trial course in your area.

Working out zones

There are a number of different training style zones you can use once you've got your FTP but the zones listed below are the most commonly used. Riding with a power meter will allow you to use these zones to do specific training sessions.

Zone	% of FTP
Recovery	<55
Endurance	56-75
Tempo	76-90
Lactate Threshold	91-105
VO2 max	106-120
Anaerobic Capacity	121-150

Training at tempo

Tempo is a key zone, also known as 'sweet spot' training as mentioned in our training plans. Riding at just below your lactate threshold allows you to improve your threshold without the resulting fatigue of training that produces lactate.

Tempo is a sneaky zone. You set off feeling totally confident you could ride this power all day, then 45 minutes in you're gasping for breath and barely hanging on to the tail end of the zone.

It is great training for general aerobic fitness so will benefit all cyclists, but it's a particularly good idea if you're training for time trials (you can add some top-end fitness once your tempo is up to scratch) or sportives. Sportives, especially those abroad with long alpine-style climbs, use a lot of tempo riding in the race itself.

Sessions don't have to be complicated, here's an example of a ride that includes tempo:

- Warm-up
- Ride 30 minutes of tempo with sprints up to 150 per cent of FTP every three minutes
- Cool-down

As you progress you can increase the amount of tempo you do in a session by 10-minute intervals. For example in week one you do 30 minutes, increased to 40 then 50 minutes before a week of recovery where you don't do any. Then start again at 40 minutes, 50 minutes, 60 minutes then a recovery week.

having a power meter will be a great asset. In fact, it is worth investing in at least a few months' coaching alongside your power meter to use it properly. Having power numbers to compare to heart rate will give your coach a good idea of how well you're responding to the training they're giving you. If you use the power meter in competition they can then see if your result, whether it was above or below expectation, was down to your performance or factors outside of your control — maybe the competition were just more capable on the day or the weather differed to a previous year.

"The data produced by a power meter is invaluable to a coach who can analyse it and make sure training was carried out correctly and feed back to the rider where improvements can be made," says Bottrill. "It is more effective to coach a client with a power meter and any good coach should be able to do this; I would encourage my riders to get a power meter if they can afford it as I want them to achieve their full potential."

To find a coach who uses power visit www.cyclepowermeters.com.

Recovery

Not just training, but recovery too, becomes more accurate with a power meter. Once you've worked out your training zones (see box out) you'll have a recovery zone that you might find shockingly slow. You'll find that it's almost impossible to stay at a recovery power unless you're riding on the flat, so you might have to turn to the turbo-trainer for recovery if you live somewhere hilly.

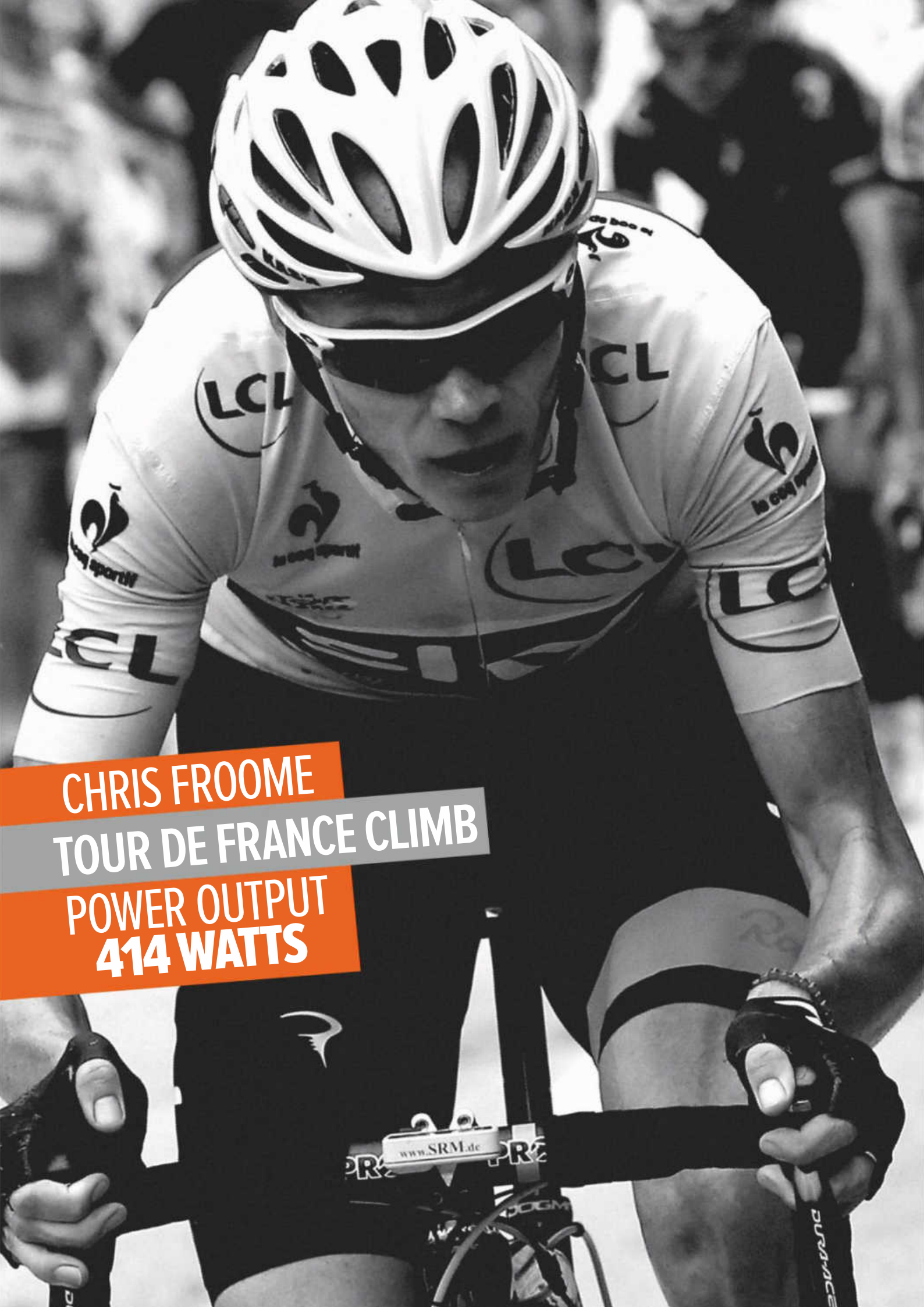
Ditch the junk and train efficiently

Along with doing actual recovery miles, riding with a power meter will help you ditch the 'junk miles'. Junk training is that which isn't hard enough to result in gains in fitness but isn't easy enough to be recovery. Without a training plan, or any way of quantifiably measuring your training, junk is unfortunately the kind of riding it's easiest to slip into doing.

With a power meter you can plan your training and ride in set zones, making the most of the time you have available.

Pacing

One significant benefit of riding with power is pacing. As you become familiar with your training zones, you learn how much power you can maintain for a certain period of time. If you set off too hard and then blow, the overall ride will be slower and you'll have gained less of a training benefit because you'll have spent less time in your intended power zone.



CHRIS FROOME
TOUR DE FRANCE CLIMB
POWER OUTPUT
414 WATTS

MARK CAVENDISH
PEAK SPRINT
POWER OUTPUT
1,600 WATTS



This is really interesting because your perception of how hard a training session was could be the same even if you pace it poorly and finish at low power — it feels as though you're riding at a high power because you're tired. With a power meter there's no hiding from the fact that you didn't finish a ride strongly.

Proper pacing takes mental strength because you have to set off at what feels like a very slow pace. You'll soon notice that most people don't do this when you ride with friends or a club. As you get better at pacing using power, you'll notice you can pace even when you don't have it. "I was much more of a slave to my power meter when I first started riding. Now I have a much better feel, I can usually glance down and guess my power within five to 10 watts!" says Grant.

Nutrition

If you don't have a power meter and you start to feel terrible in the middle of a long ride, crawling home on empty, it's easy to think the feeling was down to lack of fitness. It could just be that you've not eaten enough. It's possible to watch your ability to maintain endurance power drop off a cliff on a ride, only to find that after you've eaten a flapjack your ability to crank out power is returned and you finish strongly.

Know whether your training is working

With a power meter you can know with accuracy whether your training is actually

"Power meters are a quantifiable way of tracking your fitness"

working by tracking your power output and fitness. Training Peaks and Strava Premium both let you track your peak power output for given intervals of time, and Training Peaks has a comprehensive Performance Management Chart which allows you to track fitness, fatigue and form (see panel). If you're looking to improve your sprint you can track your best ever 30-second and maximum power output; if you're looking to improve at time trialling or longer events your functional threshold power is key [see panel]. With a power meter you have a quantifiable way of tracking your fitness.

Sprinting and short intervals

Short intervals like sprints can be fun during training rides, especially if you pit yourself against your riding partners, but it's difficult to know if you're actually improving. Intervals of less than a minute, and even up to five minutes, are difficult to do using only heart rate which takes time to catch up to the effort you put in. "Short interval sessions are very difficult to do on heart rate due to the lag time — by the time you have reached the desired heart

rate the interval is likely to be over.

Generally it's not that sessions can't be done using heart rate, but they are much more effective and easier to control using a power meter," explains Bottrill.

With a power meter the number shown on screen is the amount you're outputting *right now*, meaning short intervals are much easier to do as you can really work to hit the numbers accurately. This is motivating and good for enabling you to get the most out of yourself. It's easy to kid yourself or back off if the numbers aren't there to keep you honest.

Comparisons to others

Comparing yourself to other people to see if your fitness is improving isn't helpful; they may have done more or less training this year and you can only improve at a pace that's right for you. Good goal-setting and performance monitoring is based only on the factors that you can control. Using a power meter allows you to compare your power output to your own previous results rather than comparing yourself to other people in races or on training rides as a measure of how strong you are.

Once you start racking up the training miles with your power meter you'll be able to accurately compare the riding you do now with rides you've done in the past and create a bank of information that you can use to inform future riding and training. You can monitor how effective your tapering period



THE PERFORMANCE MANAGEMENT CHART

Another bonus of riding with a power meter is being able to use the Training Stress Score (TSS) and Performance Management Chart (PMC) functions of Training Peaks. These tools are relatively sophisticated and it will take some work to use them well — another reason to get a coach when you first start training with power. Once you know how to use them you can see how much training you should be doing and whether you're currently fit, fatigued or in form.

TSS is a measure of how hard a training session was based on how much time you spent in certain zones. TSS is used to create a performance management chart on which allows you to track your fitness and fatigue.

The performance management chart shows:

Chronic Training Load (CTL), a rolling average of your TSS. The higher your CTL the more fitness you have in the bank. It should increase steadily not sharply to avoid over-training or injury.

Acute Training Load (ATL) is how tired you are, based on your TSS.

Training Stress Balance (TSB) is a measure of your 'form', or the balance between training fatigue and recovery. It's how ready to race you are.

For TSS and your PMC to be accurate, you have to keep your training zones up to date by doing fairly frequent power tests. If your FTP is set too low your TSS will be higher than reality, so you might not do as much training as you are capable of.

The PMC can also be used to plan your training. If you plan workouts in your Training Peaks calendar it will automatically create a predicted PMC, so you can tailor your workouts to try and give you a perfect build and taper to the key event you're training for.

HOW POWER IMPROVED MY PERFORMANCE



CA Tech writer Chris Hovenden immerses himself in the world of power for the first time ahead of the 2016 season

In the past I have only ever trained using a mixture of 'feel' and heart rate. With all the talk about power being the best way to improve, this year I wanted to find out what all the fuss is about.

Two months into my coaching plan with Elliot Lipski of Train Sharp Cycling Coaching and my training (and general motivation) is unrecognisable compared to my previous efforts.

To establish my base level of fitness and relevant power zones I undertook three physical tests — lactate threshold; ramp test; and critical power — which involved varying degrees of pain. From the results Elliot set me a tailored schedule that uses power alongside heart rate and cadence to differentiate sessions and intervals.

My sessions on the turbo-trainer are far more structured and I have confidence that I am genuinely completing the sets thanks to the absolute figures provided by my power meter. When using just heart rate it took a while to hit the desired zone and despite the same perceived effort often it drifted upwards as I got hotter.

On the road I have noticed a big difference. Rather than having a rough idea of how I am performing I know exactly whether I am achieving the session's goals. Also, I hadn't appreciated how hard it is to maintain a set power on rolling terrain!

The quality of my training is higher and I'm using my time more efficiently. I'm looking forward to seeing how my training progresses and how I perform in the race season.

before an event was; whether your fuelling strategy worked; if you paced correctly; and even how different kit or bike might influence the outcome of your performance.

With a power meter you can see if it was just the wind or whether your power has actually decreased. If you use Strava you'll also start to see that your time on segments is weather dependent when you average a higher power but record a slower time than when you set your PR.

Power to weight ratio

Riding with a power meter will make you acutely aware exactly how much those few extra pounds are slowing you down. Strava lets you see how much power other people are outputting while riding a segment — although it's important to note that a lightning bolt next to a power output means the rider was using a power meter. Numbers that don't have a lightning bolt are an estimate of power.

This can be demoralising when you realise exactly how much more power you have to produce to ride a climb as fast as a lighter friend. Using a power meter while losing weight will help ensure you are maintaining your power, rather than losing muscle and power and gaining nothing in terms of speed.

Without a power meter there's no real way of knowing whether you've got lighter and maintained your strength or just got lighter.

See where you need to improve

By riding with a power meter you can

really concentrate on the length of time over which you need to be stronger and do specific training sessions to improve over that period of time. If you ride 10-mile time trials this is going to be around the 20 to 30-minute mark, if you want to do well in sportives training at tempo pace [see panel] will be worthwhile.

Use in racing

Riding with a power meter can be really useful in certain events, especially time trials and sportives, where your result is based on the effort you put in rather than sheltering within a group. "In a time trial all you need to do is follow the numbers in order to produce the fastest ride you are capable of on that day," explains Bottrill.

"In a road race you can feel when you are going into the red and don't need numbers to tell you you're going to blow up in five minutes if the pace is sustained," says Grant, although Bottrill has a way of using power during road races: "A rider can use a power meter to measure the number of big efforts they can make and so better time their attacks," he explains.

It's also useful to have the data afterwards to see what your heart rate and power were doing when the going got tough. You'll also be able to see how much your end-of-race sprint suffers compared to your rested sprint in training, and won't be able to grumble too much if you're beaten despite having pushed out your all-time maximum



power output in the dash for the line.

Testing your bike position

Yet another benefit of training with a power meter is the fact you'll be able to see which position on the bike is actually the best for your power output. The aero position on a time trial bike tends to reduce the amount of power you can put out, but the massive benefit of being in such an aerodynamic position outweighs this. The balancing act involves working out the best position for both power output and aerodynamics.

You might even find there's a difference between your power on your training bike versus your racing bike, which might not have an obvious difference in riding position but enough to alter your power. One thing to look



BRADLEY WIGGINS THE HOUR RECORD POWER OUTPUT 450 WATTS

out for here is whether your power output reading is being altered by factors other than how hard you pedal.

Although there are numerous benefits to riding with a power meter and it will almost undoubtedly improve your training, riding with one all the time can start to sap the fun out of going for a bike ride. To keep cycling fun it's worth doing some rides without it. Go out and ride however you feel like riding — sprint up a hill, for a signpost and play to keep the love of cycling fresh.

Ultimately, a power meter alone won't make you faster — it all comes down to training. What it will do is make your training more specific and allow you to track your improvement quantifiably if you have the desire to use it properly.

CAUSES OF INACCURATE READINGS

Using a different bike: If your power meter is in the rear hub of your bike things such as how flexible your cranks are will alter the power reading you get. Power meters in the crank are more accurate for this reason — there are, literally, fewer links in the chain between your foot putting in the power and the meter reading the power.

Q-shaped rings increase the power reading by about five per cent. If you're using these oval rings on all your bikes that's fine, as your numbers will be consistent for your own training. If you're comparing your power to other people's, however, it will be slightly misleading.

Turbo-training. Fixing the rear end of your bike into a turbo-trainer can alter power readings for power meters in the rear hub, usually making the reading lower than it should be. If you're training on a turbo and your zones were set by doing a power test on the road you might want to perform the test on the turbo to ensure accurate zones.

Not calibrating your power meter. You should calibrate your power meter according to the manufacturer's instructions regularly to make sure it's accurate.

Antioxidants 101

Antioxidants are applauded for protecting us against everything from ageing to cancer, but how can these nutrition heroes benefit cyclists?

Antioxidants are compounds that prevent damage caused by free radicals, unstable molecules formed as part of normal metabolism. Our bodies are constantly using oxygen, and free radicals are a by-product of this. Although free radicals can be helpful messengers, they can also damage cells and DNA, a process known as oxidative stress.

Antioxidants are the body's form of self-defence, mopping up or neutralising free radicals. Although the body produces antioxidants naturally, we also consume them from food, the major sources of which are vitamins A, C and E, and beta-carotene (a form of vitamin A), as well as compounds in plant foods like berries, nuts, spices and tea.

Under optimal circumstances, our bodies have adequate antioxidant defences to neutralise the free radical load, but if exposed to high levels (as the result of sun exposure, pollution or even intense exercise) our antioxidant systems can be overwhelmed, leading to oxidative damage. This is a concern because over time an accumulation of oxidative damage is thought to play a role in the development of conditions such as Alzheimer's, cancer and heart disease.

Antioxidants and cyclists

For cyclists antioxidants are particularly important because the rise in oxygen consumption during exercise correlates with an increase in free radical production. Studies also show free radicals are produced in contracting muscles, and this escalates rapidly as exercise gets harder or more intense (when you're climbing a hill or cycling at your maximum capacity) and when exercising in hot or high altitude environments.

While this process is completely normal, free radicals can damage muscle fibres and contribute to fatigue during long training sessions. One of the ways the body adapts to intense exercise is to increase its own production of antioxidants, but during the early stages of cycle training or during intense

sessions, oxidative damage can occur.

For this reason, many cyclists have been motivated to invest in antioxidant supplements with the hope of reducing fatigue and improving performance. Although this sounds good in theory, the scientific research suggests that synthetic supplementation isn't helpful, and could actually hinder rather than benefit cycling performance.

This is because a certain amount of physiological 'stress' is necessary to trigger adaptation to exercise, some of which is stimulated by a rise in free

radical production, studies show synthetic antioxidants can blunt this response, inhibiting the body's ability to adapt to high intensity training.

In one study of trained triathletes, those who regularly used antioxidant supplements had greater levels of oxidative stress following an Ironman race than those who did not. However, in untrained subjects, the antioxidant quercetin has been shown to have a positive effect, suggesting that supplementation may be worthwhile at the start of a training programme, but not beyond. This is backed by studies that



have failed to find any benefit of antioxidant supplementation on fatigue or performance in highly trained cyclists, possibly because they already have an elevated antioxidant capacity.

Although some studies have shown a benefit of acute antioxidant supplementation (i.e. taken just before cycling), most of the evidence now shows that chronic supplementation (taken for several weeks) can have a negative effect, and therefore can't be recommended.

Food first

With synthetic supplements given a red light, the focus has shifted to naturally occurring antioxidants from food, with better results. Plant foods like fruit and vegetables, nuts, cocoa and spices have all been shown to exert antioxidant effects. In one 2014 study from Northumbria University, scientists examined the antioxidant effects of tart cherry juice in a group of trained cyclists undertaking simulated road cycle training. Cyclists in the cherry group consumed 30ml of juice twice daily for seven days, before

performing a race on days five, six and seven. Results showed markers of oxidative stress and inflammation were lower in the cherry juice versus placebo group.

In another study from Edinburgh University, healthy men performing intensive treadmill training had lower levels of oxidative stress and DNA damage after consuming an 85-gram serving of watercress in the hours pre-exercise. Similarly, scientists at the University of Ulster found a daily dose of watercress reduced DNA damage and improved antioxidant status in healthy adults over a period of eight weeks.

Other research has confirmed the benefits of consuming high antioxidant foods before and after training — in one Greek study, tomato juice taken before and after exercise reduced markers of oxidative damage and inflammation in trained athletes, credited to the lycopene content of tomatoes, a powerful antioxidant.

More recently, researchers from the Institute of Medicine in Mexico City found cocoa consumption reduced markers of muscle damage and oxidative stress in professional football players when taken before and after exercise.

Antioxidant boost

When it comes to antioxidants, the message for cyclists seems to be 'food first'. The best way to increase your intake of antioxidants is to eat a diet rich in brightly coloured fruits and vegetables together with pulses, olive oil, nuts, cocoa, herbs and spices. The pigments that give fruit and vegetables their characteristic colour are a potent source of antioxidants, so the advice to 'eat a rainbow' of colourful plant foods is well founded.

In a 2005 study examining the antioxidant content of over 100 foods, the United States Department of Agriculture ranked cranberries, blueberries, blackberries, black beans, prunes, red apples, walnuts and pecans as the top sources of antioxidants.

Although there's no such list in the UK, you can boost your antioxidant intake



Highest in antioxidants

Watercress, kidney beans, black beans, blueberries, red delicious apples, cranberries, blackberries, prunes, raspberry, strawberries, pecans, plums, sweet cherries.



Spices

Cloves, ginger, oregano, cinnamon, turmeric. Top roasted vegetables with oregano, add cloves to baked fruits and throw ginger into a stir-fry.



Antioxidant fix

Pre-training: add cinnamon and berries to your porridge oats, or serve scrambled eggs and toast with cooked tomatoes and spinach. Post training: whizz up a smoothie using whey powder, frozen cherries and cocoa powder, or blend turmeric and fresh ginger with orange juice and a banana.

simply by including at least one antioxidant rich food in each meal. At breakfast add frozen berries, cocoa or cinnamon to a morning smoothie or porridge, serve lunch with a watercress and tomato salad, then focus on plant foods in your evening meal — beans or pulses and sweet potato are great choices. Dried herbs and spices are also a brilliant, convenient and cheap source of antioxidants that you can store in your cupboard. Cinnamon and ginger are great in smoothies, rosemary teams with roasted vegetables while turmeric can be added to soups and stews.

With studies showing that antioxidant rich foods consumed before and after training can help to ameliorate muscle damage and oxidative stress, focusing antioxidant rich foods in your pre and post training meals is also a smart move, and one that is likely to benefit you more than a synthetic supplement.

ANTIOXIDANTS EXPLAINED

Antioxidants are compounds which neutralise free radicals, unstable molecules formed as a normal part of oxidative metabolism. Without sufficient antioxidant defences these free radicals can damage cells, leading to oxidative damage, a process thought to play a role in heart disease, cancer and premature ageing. Consuming a diet rich in antioxidants can bolster the body's natural defences. For cyclists, antioxidants are particularly important due to the rise in oxidative stress associated with exercise. Although synthetic sources of antioxidants have failed to demonstrate benefit, foods naturally rich in antioxidants consumed before and after training can help to offset the rise in free radicals after exercise.

COLOURFUL AND HEALTHY WATERCRESS RAINBOW SALAD

A quick-to-prepare rainbow salad that combines the health benefits of watercress with colourful superfoods including lentils, avocado, feta and pomegranate seeds



YOU WILL NEED

- 2 vacuum-packed cooked beetroots
- 1 yellow pepper
- 2 medium carrots
- 1 tin of green lentils (400g)
- 85g (1 bag) watercress
- 50g feta cheese
- 1 pomegranate
- 2 tbsp fresh parsley
- 1 avocado

DRESSING

- 2 tbsp apple cider vinegar
- 1 tbsp honey
- 3 tbsp olive oil
- Pinch of salt

METHOD

- 1.** Slice the beetroot and yellow pepper into fine matchsticks and grate the carrot. Drain the tin of lentils and combine with the vegetables in a large salad bowl.
- 2.** Prepare the dressing by whisking together the apple cider vinegar, olive oil, honey and salt together in a bowl.
- 3.** Pour the dressing into the bowl of sliced vegetables and lentils and toss so all ingredients are coated

in the dressing.

- 4.** Gently toss the watercress through the salad.
- 5.** Crumble over the feta cheese followed by the parsley.
- 6.** Cut the avocado in half, twist and remove the stone. Cut into slices and arrange on top of the salad.
- 7.** Cut the pomegranate in half and tap the back with a wooden spoon while holding it over the bowl to release the seeds, sprinkle on top to finish the salad.

Serves
4
Preparation time
15MIN

* WHY IT WORKS

322
kcalories

15.1g
Sugar

1.5g
salt

19g
fat

FEEL THE HEAT

CHILLI SALMON

WATERCRESS AND LENTILS

This super-healthy, filling supper has a kick from the chilli sauce and the peppery watercress stirred through the lentils

Serves **2**
Cooking time **15MIN**
Preparation time **5MIN**



YOU WILL NEED

- 2 tsp chilli sauce (we used harissa)
- 1 can green lentils rinsed and drained
- 50ml stock
- 2 salmon fillets
- 2 large handfuls of watercress plus a sprig to serve
- 1 lemon

METHOD

1. In a non-stick frying pan with a lid, cook the chilli sauce briefly until it becomes fragrant. Combine with the lentils and stock.
2. Lay the salmon fillets on top of the lentils and cover tightly with the pan lid. Steam for 8-10

minutes until the salmon is cooked.

3. Once cooked, lift out the salmon and keep warm. Turn up the heat and add in the watercress and a squeeze of lemon and stir through until it has wilted.

4. Serve the lentils topped with the salmon, a little more lemon and serve.

* WHY IT WORKS

716
kcalories

63g
carbohydrates

87
protein

12g
fat

Non-whey recovery drinks



When to
take

20-30
mins after exercise



Mix
with

300ml
of water



How
much

20-30g
of protein

Why not whey? asks *Paul Knott*

When it comes to your post-ride recovery, a good 20-30g of protein is required to refresh fatigued muscles and rebuild damaged fibres. However, there is a variety of options when it comes to non-whey recovery drinks with soya, egg white and pea protein to name a few that feature in a crowded and easily available protein supplement market.

Whey protein may be seen as the go-to recovery supplement, no doubt due to myths that were bandied around to describe other methods such as soya. One of these rumours led to it gaining the status of the 'feminine protein' as it was claimed to reduce testosterone levels, which would in turn slow down muscle growth. These claims have since been proven to be false by scientific studies that have tested this theory, with results comparing whey and soya protein showing that soya had no negative influence on testosterone levels.

Protein origins

Despite the wide variety of protein powders containing similar levels of protein there are noticeable differences between whey and non-whey products. The most notable difference is where the protein itself derives from. Whey protein is a by-product of dairy, which can be problematic for cyclists with dairy allergies. Protein powders such as pea and soya come from non-animal products, while other non-whey protein products derive from sources such as eggs.

Obviously protein replenishment can be achieved through consuming certain foods in your day-to-day diet, with high protein foods such as red meats, eggs and fish falling into this category. Although these high protein foods will help muscle recovery, they are sometimes not practical to prepare and consume if you are looking for an immediate protein boost. This is even more crucial post-exercise, as it is more important than usual to increase your protein intake and to restock stores as soon as possible afterwards.

Nutritional benefits

It isn't all about protein when analysing non-whey recovery drinks, as they have a wide variety of nutritional benefits as well. Soya protein powders have nutritional properties that can help increase bone

density, as does whey, which can be particularly beneficial for older cyclists.

Egg white protein powder, especially powder that has been created from free-range eggs, has been found to have large amounts of vitamins A, B, D and E, all of which can help encourage bone growth, maintain a healthy immune system and contain a high level of antioxidants, which whey protein lacks.

Despite pea protein perhaps having been given the reputation as a substandard protein source due to its incomplete make-up, its hypoallergenic nature does give it the upper hand over other protein sources. Whey, casein and even soy protein powders can sometimes lead to intolerances that make consumption unbearable, but pea protein doesn't contain any allergenic ingredients, meaning even if it isn't your protein shake of choice it is a very useful alternative to mix up your recovery drink routine.

When do I need them?

Protein consumption shouldn't be seen as necessary only for riders looking to build muscle, as it plays a crucial role for athletes at all levels and in a variety of sports. Despite the protein-guzzling, muscle-bound gym-monkey stereotype, protein is all about helping muscle fibres recover, whether this is after a gym session or a long Sunday club ride.

Without the necessary protein replenishment, muscles may ache for days afterwards and not recover fully, meaning you are unable to train to your full potential or even at all, and could cause injury from muscle overuse.

Proteins are formed by amino acids and are a major structural component of muscles. Eight of these amino acids (known as essential amino acids) can only be utilised by the body from external sources within our diets. Without these amino acids the body's ability to repair and grow muscle tissue is compromised. In some cases the body can also use protein as an energy source, but it's not the most efficient fuel, especially when compared to carbohydrates.

“Results showed that soya had no negative effects on testosterone”

WHEY OR NO WHEY?



Soy is often perceived as inferior to whey or even maligned, but it shouldn't be over looked.

Like whey, soy is a complete protein source containing all essential amino acids. Used together soy and whey complement each other with whey digesting quickly and soy more slowly creating a longer lasting protein pool for recovery. Soy is the only plant considered to offer high-quality protein, making it a useful dietary addition for vegetarians and vegans. It's also a useful alternative to anyone with lactose problems.

There is some evidence that soy can reduce cholesterol levels and studies have suggested that soy consumption can reduce risk of prostate cancer in older men.

One common thing heard about soy is that it affects testosterone levels in men. Soy contains isoflavones that function as phytoestrogens mimicking estrogen, the female sex hormone. Studies on this have shown inconsistent results with some showing a small effect on testosterone production and others no effect at all.

A number of scientific studies have stated that consuming 20 to 25 grams of non-whey protein post exercise will help start the recovery process; this is alongside eating day-to-day protein sources in your everyday diet.

Verdict

Recovery drinks may well be one of the last things on your mind when you get back from a ride, with getting showered, uploading your ride online or just having a lie-down taking priority. However, it is crucial to give your muscles the best chance of a fast recovery by fuelling them with the correct nutrition. You should keep in mind that your next ride begins as soon as the last one ends. For riders suffering from whey-related allergies, quality of recovery needn't be compromised thanks to a number of non-whey recovery products that offer comparable protein levels and digestion rates.

Etixx Complex Training Shake £49.99 for 1kg

Etixx has developed a training blend that not only covers non-whey protein recovery but also all areas of post-ride recuperation. Each 50g portion of Etixx's Complex Training Shake contains 25g of soya protein concentrate, while

also providing an extra 2.5g of pea protein per serving.

Whereas the other powders in this test focus primarily on protein, Etixx's training shake also contains 17g of carbohydrates. It is not just carbohydrates and protein, as there is also 830mg of creatine monohydrate present in each serving. It is only available in

chocolate flavour, but this isn't uncommon, with the majority of non-whey recovery shakes having a limited range of flavours when compared to other supplements.

However, Etixx does provide the Training Shake in either convenient 50g pouches or as a 1kg tub, meaning you can economise if you're willing to weigh out your own portions.

This product is a good choice if:

you want a drink with added carbohydrates as well as protein.

8

www.etixxsports.com



OTE Soya Protein £2.25 for a 52g single serving

The British company may be one of the newest sports nutrition companies around but it has certainly made its mark both on the general public and within cycling itself, from the WorldTour all the way down to the amateur level. Its soya

protein mix is available in ideally sized 52g pouches, and is instantly recognisable due to OTE's dual-opening system that eliminates the chances of mess being caused when mixing powders by allowing an access point for both wide and small-necked bottles. Each serving provides 25g of protein and 18.6g of carbohydrates, both ideal amounts to

help begin the recovery process without overloading the body with unnecessary carbs. OTE Soya Protein is also available in bulk form in both chocolate and strawberry flavours, as well as being suitable for vegetarians and those who need a lactose and gluten-free recovery drink. OTE has created a non-whey recovery mix that delivers on three fronts — convenience, taste and structure.

This product is a good choice if:

you want to avoid any mess when mixing.

9

www.otesports.co.uk



Reflex 100% Egg White Protein £41.99 for 900g

When it comes to protein, there's not much Reflex Nutrition doesn't know, with a large variety of blends across its range.

Reflex's Egg White Protein powder is made by pasteurising egg whites to eliminate harmful microbiological

organisms before dehydrating them to create a powder. Egg white protein has been seen as a classic in protein supplementation both in powder and natural form. However, there is now no need to crack raw eggs into a glass and down them directly as Reflex Nutrition's egg white mix now provides up to 19g of protein per serving.

Carbohydrate content is low, though, with just 3g per 25g portion.

The flavour you choose may have a direct effect on the percentage of protein content that each serving contains, with the vanilla flavour consisting of 94 per cent protein content compared to the chocolate flavour that is reduced to 85 per cent to allow for the cocoa powder ingredient.

This product is a good choice if:

you are allergic to dairy or simply prefer non-dairy foods.

8

www.reflexnutrition.com



*Nutrition information per recommended serving

*Depending on flavour

SiS Rego Rapid Recovery £34.19 for 1.6kg

SiS provides nutrition supplementation for a number of cycling teams, including Sky, and was also the protein choice of Sir Chris Hoy when he was at the peak of his powers.

50g
weight
180*
Kcal
20g*
protein

However, SiS Rego Rapid Recovery isn't just for huge-thighed Olympic champions — all of us can benefit from its 20g of soya protein per 50g sachet, along with 22g of carbs. Each shake contains an additional 2g serving of leucine, a key amino acid that studies have shown switches on the signalling for muscle

protein synthesis.

When it comes to flavour and portion size variety, SiS Rego Rapid Recovery is well above the other products on this test. Coming in banana, vanilla, chocolate and strawberry as well as 50g sachets or 500g and 1.6kg bulk tubs, it should suit a variety of cyclists' tastes and needs, whether this be out on the road or back home.

This product is a good choice if:

you want a good variety of flavour and size options.

www.scienceinsport.com

9

Pulsin Pea Protein £6.29 for 250g

Pulsin's pea protein powder is an excellent choice with a protein content of 82 per cent per serving. Pea protein is also slow-digesting, which means you stay fuller for longer compared to other protein powders.

20g
weight
72*
Kcal
16.4g*
protein

Coming from yellow split peas, pea protein is low in fat as well as being a great source of essential amino acids. It is also very easy to digest, so is a good option if you have a digestive issue.

Depending on whether you are looking for carbohydrate replenishment or not, it might be useful to know that Pulsin Pea Protein has a very

limited amount of carbohydrates with just 0.6 grams per each 20g portion.

Depending on your training criteria this may be a useful source of protein for individuals on a weight-loss diet.

This pea protein isolate formula is ideally served added to food, but a small 10 gram serving could be added to your morning smoothie to help boost your daily protein intake.

This product is a good choice if:

you are looking for a protein powder you can add to food as well as drinks.

www.pulsin.co.uk

8



NATURAL ALTERNATIVE

Tofu



As with all sports supplements, convenience is key.

But if you are still looking to get a protein boost from 'real food' then tofu may well be the answer for your non-whey nutrition needs.

Tofu is created by soaking soybeans in water to create soymilk, this is then curdled before being packaged into a block and cooled. Just like the soya protein powders, tofu is a complete protein, meaning it provides all the essential amino acids the body needs.

The general rule when looking for high protein tofu is the harder the tofu the greater the protein content, with up to 15 grams of protein content per 100 grams of tofu.

It may seem like the perfect natural alternative, with additional vitamin and mineral benefits on top of its high protein content. However, tofu does come with a warning: its high fat content can be an issue if not prepared properly, so make sure you get creative in kitchen to make sure you'll be seeing performance benefits rather than negatives.

140
calories

16g
protein

100
grams



Weighing up the pro diet

*Rebecca Charlton talks to the
woman responsible for
fuelling the peloton*

Ask some of the biggest athletes in the business who advises them on nutrition and the name that often crops up is Emma Barraclough. She's been working away behind the scenes for over a decade on pioneering research, most recently for nutrition giant Science in Sport, where she's a senior sports nutritionist. But her interest in sports nutrition started much earlier than that, in the chemistry lab at school: "I did A-level chemistry so I could measure sugar concentrations. This meant I knew how much squash should go in to have a six to eight per cent sugar solution in my bottle during netball!"

Coming a long way from the school lab Barraclough now works with the likes of Team Wiggins, Sir Chris Hoy and Boels-Dolmans. "It's really important for us to have feedback from athletes; everything we do at Science in Sport has a scientific application, we don't do gimmicks. It's got to be palatable, it's got to be practical to take and the athlete has to want to use it."

While professional riders burn off at least three times the average calorie expenditure of us mere mortals on a race day, Barraclough stresses the importance of putting only the right stuff back into the body. "Just because you're burning 8,000 calories a day, it doesn't give you carte blanche to eat anything you want," she explains. "If a rider has a McDonald's, within an hour his or her gut will be struggling. A pro rider isn't used to eating fat levels like that and you pay for it the next day. It will also be stupidly high in salt so you'd feel quite dehydrated."

But that's not to say they, or we, should be ditching the fat completely. "Fat does

certainly play a role so some pro teams will have porridge with a dairy-free option — rather than using milk as the softener, they'll use water and olive oil," she continues. "It gives it moistness but it's good fats. A lot of it is down to quantities too, so it will be a big breakfast, food on the team bus as well. They'll have a musette during the stage, as well as what they're carrying. It's continued throughout the day. There's the food room too, where riders can access snacks back at the hotel."

Pros v amateurs

Marginal gains for the pros are one thing but how much difference can nutritional tweaks make for the rest of us?

Barraclough explains:

"Athletes who are the ideal body composition for their sport are already metabolically efficient. Bradley [Wiggins] would be the first person to tell you that [the regime which reportedly took him to four per cent body fat] was not sustainable. It was, 'What can I do for three weeks to be the best I can be?' and I think for us mere mortals you have to find some kind of equilibrium from a lifestyle point of view."

"You can run yourself at such low energy levels that you get to work every day

"My route into cycling"

"I studied Sports Science as an undergraduate and I was quite good at science at school. I finished my degree 10 years ago. I spent eight years based out of a sports medical centre where I was working in physiology, nutrition, and injury management but it was the nutrition that always captured my imagination, and to a greater extent when I got more into endurance sport myself. Having experience of what it's like when it goes wrong and the difference it can make when it goes right, was key to my research."

and you can't concentrate and you're falling asleep at your desk. You need to be aware of your energy expenditure day-to-day and how it will vary quite substantially. With the pros, energy expenditure will be quite similar from day to day during a training block but yours could be thousands of calories apart, depending on whether you're riding or sat at a desk."

Go easy on the stomach

We've probably all experienced the odd stomach cramp or discomfort during a tough session on the bike, but Barraclough explains how you can overcome this by getting your nutrition right: "We know that you can actually train your gut to cope better so that's why we always say, 'Get used to your sports foods in practice.'"

"Even simple things such as making sure you have you diluted the product correctly,

according to the directions. And if you haven't and it's a really concentrated solution, it's going to screw up the fluid balance in your gut and that may be why you're getting stomach cramps, especially when things are based more on simple sugars. It's much easier to end up with something hypertonic so your body's going to try to flush your gut with fluid to dilute what's in there, which of course makes you feel bloated and sick. It's not giving you the energy delivery either."

EMMA BARRACLOUGH ON...

Carbohydrate



Your body can only store about 90 minutes' worth of carbohydrate so if

you're riding for longer you're going to need to take some fuel as you go. Bars, drink powders and gels can all be used for this. Somewhere between 30-60 grams of carbohydrate per hour is the minimum target but 60 grams is about the maximum amount that you want to aim for. Feeding on a long ride ensures you're not absolutely emptying your stores.

Small intestine



A lot of what you tolerate best is dependent on the intensity of your ride.

If you're racing then you're probably looking to drinks and gels because they will be absorbed most easily but if you're just riding steadily, solid foods will sit OK. Regardless of body size our absorption areas are all about the same; whether you're a 6ft 6in male or a 5ft 3in female, if you were to flatten out your small intestine the surface area would be about the size of a football pitch.

Caffeine



Caffeine doesn't give you any extra energy but it's all about tricking your

brain and lowering that perception of effort. So if you're trying to do something short and sharp like a 10-mile time trial, take it beforehand. If you're going for a much longer ride, and you know you've got two or three big climbs towards the end, you'll need it in your system for that point so you can keep your legs ticking over, so you'd have it later on in the ride.

Overeating



If you've only ridden for an hour and a half and you've drunk an energy

drink, then a recovery drink and food straight after is probably too much. And don't overdo it at feed stations. It's a common thing that a lot of people get wrong and eat from huge tables of sandwiches and cakes and flapjacks, cola and all sorts — just think whatever you put in your gut you've got to set off with and you can guarantee there'll be a hill just around the corner!



EVENT CALENDAR

The best events that the new year has to offer, countrywide

Saturday January 30

E SUFFOLK **NUTCRACKER SPORTIVE**

DISTANCE 37/53 MILES
TOTAL ELEVATION 672M (LONG)

HQ Rowley Mile Racecourse, Newmarket, CB8 0TF
Entry £35

CA says If your New Year's resolution to ride more hasn't started too well then this should get you back on track. Rolling out of Newmarket through the quiet villages of Brinkley, Balsham and West Wickham, you'll be tackling a shorter distance than your average event but you can briskly spin the legs out to minimise the time spent out in the cold.

[@ukcyclingevents](#)
www.ukcyclingevents.co.uk

Sunday January 31

NW GREATER MANCHESTER **RIDEIT! ROCDDALE**

DISTANCE 30/50/70 MILES
TOTAL ELEVATION 1,342M (LONG)

HQ Wardle High School, Rochdale, OL12 9RD
Entry £20/£25

CA says Take on the UK's longest continual climb: Cragg Vale as you push on the roads around West Yorkshire. Featured on the 2014 Tour, the local moors offer up some remote riding and the routes flow through the villages of Todmorden and Hebden Bridge. This will certainly wake the legs if you've

KEY

C Central **E** Eastern
EM East Midlands **I** Ireland
IM Isle of Man **NE** North East
N N. Ireland **NW** North West
Sc Scotland **SE** South East
S South **SW** South West
W Wales **WM** West Midlands
Y Yorkshire

been off the bike for a few weeks.
[@EvansCycles](#)

www.evanscycles.com/ride-it/find-a-ride

Sunday February 7

E ESSEX **THE EQUALISER**

DISTANCE 39/60 MILES
TOTAL ELEVATION 818M (LONG)

HQ Weston Homes Community Stadium, CO4 5UP
Entry £35

CA says The mainly flat roads of Essex will throw up some rather unexpected lumps and bumps as you follow the figure of eight route from Colchester town into Dedham Vale AONB. The short uphill drags will keep you on your toes, pushing out of the saddle as you traverse villages on the River Box and Stour.

[@ukcyclingevents](#)
www.ukcyclingevents.co.uk

SW BRISTOL **RIDEIT! BRISTOL**

DISTANCE 15/30/50/70 MILES
TOTAL ELEVATION 1,424M (LONG)

HQ Hengrove Park Leisure Centre, BS14 0DE

Entry £7.50/£20/£25

CA says This is going to be tough on the legs, especially for those on the long route as you head for the Mendip Hills and the dramatic limestone rock faces of Cheddar Gorge. The route then swings into the Chew Valley where you'll pass over the impressive and peaceful Chew Valley Lake.

[@EvansCycles](#)
www.evanscycles.com/ride-it/find-a-ride

Saturday February 13

S HAMPSHIRE **ORDNANCE SURVEY INSANITY**

DISTANCE 41/58 MILES
TOTAL ELEVATION 1,035M (LONG)

HQ Sparsholt College, SO21 2NF
Entry £35

CA says Snowfall prevented last year's event from taking place — let's keep our fingers crossed that this year's slightly later date will avoid the bad weather. The route heads around the quiet Test Valley, over the rolling downs towards Kings Worthy and the Itchen Valley. The turn for home comes at Droxford where you can test your legs as the route heads over Corhampton Down.

[@ukcyclingevents](#)
www.ukcyclingevents.co.uk

Saturday February 13 & Sunday February 14

SE GREATER LONDON **RIDEIT! THE LONDON BIKE SHOW**

DISTANCE 60 MILES
TOTAL ELEVATION 785M (LONG)

HQ Excel London, Royal Victoria Dock, E16 1SL
Entry £30

CA says Head out early on either the Saturday or the Sunday to explore Epping Forest before heading into the throngs at the Excel and poring over all the shiny new tech and kit. A few miles of urban riding will quickly melt away; you'll be in Essex and the Lee Valley before you know it.

[@EvansCycles](#)
www.evanscycles.com/ride-it/find-a-ride

Sunday February 14

SW GLOUCESTERSHIRE **PERFORMANCE CYCLES MINI-SPORTIVE (5 OF 6)**

NEXT MONTH

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RideLondon 100

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Disc-equipped machines

Training + Fitness

Wearable technology
Energy bars

Columnists

New School has a problem with his cleats

On sale
February 24



Rawlinson Bracket: tough test in Warwickshire

DISTANCE 45/65 MILES**HQ** Waterland Outdoor,
Cirencester, GL7 6DF**Entry** £8.50

CA says The penultimate event in this winter series will help you to keep getting the miles in during these cold, wet months. These events are stripped back with no chip timing and while there is no feed station on the route you can tuck into cake and hot drinks post-ride.

@VeloEventsUK

www.minisportiveseries.co.uk

Saturday February 20

E CAMBRIDGESHIRE WIGGLE NO EXCUSES SPORTIVE

DISTANCE 42/80 MILES**TOTAL ELEVATION** 716M (LONG)**HQ** Huntingdon Racecourse,
PE28 4NL**Entry** £35

CA says You're in for a nice fast 80 miles through the three counties of Cambridgeshire, Bedfordshire and Northamptonshire, with the long route here clocking up only 716 metres of total climbing. Grimacing faces will be few and far between as more gentle gradients greet you on this early-season ride — just beware of the headwinds!

@ukcyclingevents

www.ukcyclingevents.co.uk

Sunday February 21

S WEST SUSSEX RIDEIT! GATWICK

DISTANCE 12/30/50/70 MILES**TOTAL ELEVATION** 1,6462M (LONG)**HQ** Evans Cycles, Camino Park,
Crawley, RH10 9TZ**Entry** £7.50/£20/£25

CA says From Gatwick you drop into the Ashdown Forest to pit your wits against the Ardingly Reservoir climb, Weir Wood Strava segment and the toughest of the trio, Kidd's Hill climb — affectionately known as 'the Wall'. Right on the doorstep of the Evans HQ, this route has been well designed and also offers a cyclo-cross sportive if you fancy a bit of the rough stuff.

@EvansCycles

www.evanscycles.com/ride-it/find-a-ride

Sunday February 28

WM WARWICKSHIRE THE RAWLINSON BRACKET

DISTANCE 70 MILES**TOTAL ELEVATION** 1,300M (LONG)**HQ** Gaydon, CV35 (TBC)**Entry** £17.50/£25

CA says You're in for a tough slog around Warwickshire here as you take on some of the county's infamous climbs. Edge Hill (Knowle Hill) with its 14 per cent sections, and Sunrising Hill that peaks at 16 per cent and packs a punch with its alpine-style switchbacks, are the two stars of this 70-mile route.

@TheRawloBracket

www.the-rawlinson-bracket.co.uk

C HERTFORDSHIRE BUCKS ROAD SPORTIVE

DISTANCE 53/62 MILES**TOTAL ELEVATION** TBC M (LONG)**HQ** Chiltern Sports and Social Club,
Rickmansworth, WD3 2SQ**Entry** £10/£12

CA says The Chilterns is a great setting in which to test your early-season fitness. The organisers have promised you won't be in for an easy ride as you tackle many of the area's iconic hills. There will be no feed stops on the route but plenty of carbs at the HQ both pre and post ride to keep you fuelled.

tinyurl.com/pabz3mw

Sunday February 28

EM LEICESTERSHIRE CORITANIAN CRIPPLER

DISTANCE 30/50/65/80 MILES**TOTAL ELEVATION** 1,233 M (LONG ROUTE)**HQ** Leicestershire Road Club,
Outdoor Pursuits Centre, LE4 5PN**Entry** £5

CA says With route names like 'the Leg Breaker' and 'the Crippler' you know you're in for a tough day in the saddle. From the start line you'll soon be into short, sharp hills to get your legs ready for the big push over the ride's highest point of Beacon Hill. Of course, it comes in the last few miles of all the routes.

www.coritaniancriple.org.uk

S WEST SUSSEX THE ROCKET

DISTANCE 44/51/69 MILES**TOTAL ELEVATION** 984M (LONG ROUTE)**HQ** Amberley Working Museum,
Amberley, BN18 9LT**Entry** £26/£35

CA says With spring just around the corner you should be racking up the miles now and these fast, flowing roads will have you clocking up some good speeds. You'll dive into West Sussex and take a quick run through the low Weald.

www.ukcyclingevents.co.uk

Don't miss out

Sunday May 1

Y YORKSHIRE TOUR DE YORKSHIRE

Entries open**January 18****DISTANCE** 45/85/115 KM**Entry** £TBC

CA says As part of the UK's Tour de France legacy, sportive riders will warm the roads up for the third stage of the pro race, which will take place the same day.

The full route travels from Middlesbrough to Scarborough with some good climbs like Côte de Sutton Bank, Côte de Robin Hood's Bay and Côte de Grosmont. Entries opened back on January 18 so don't delay.

www.humanrace.co.uk/event/tour-de-yorkshire-ride/

Sunday May 22

W WALES VELOTHON WALES

Entries are open**DISTANCE** 140KM**Entry** £65

CA says Standard entry for this year's Velothon Wales is still available. Last year over 10,000 riders took part in the closed road event that headed out of Cardiff to take in the scenery of South Wales and take on the climb of the Tumble. Hang around afterwards to watch the pros do battle on the same roads.

www.velothon-wales.co.uk

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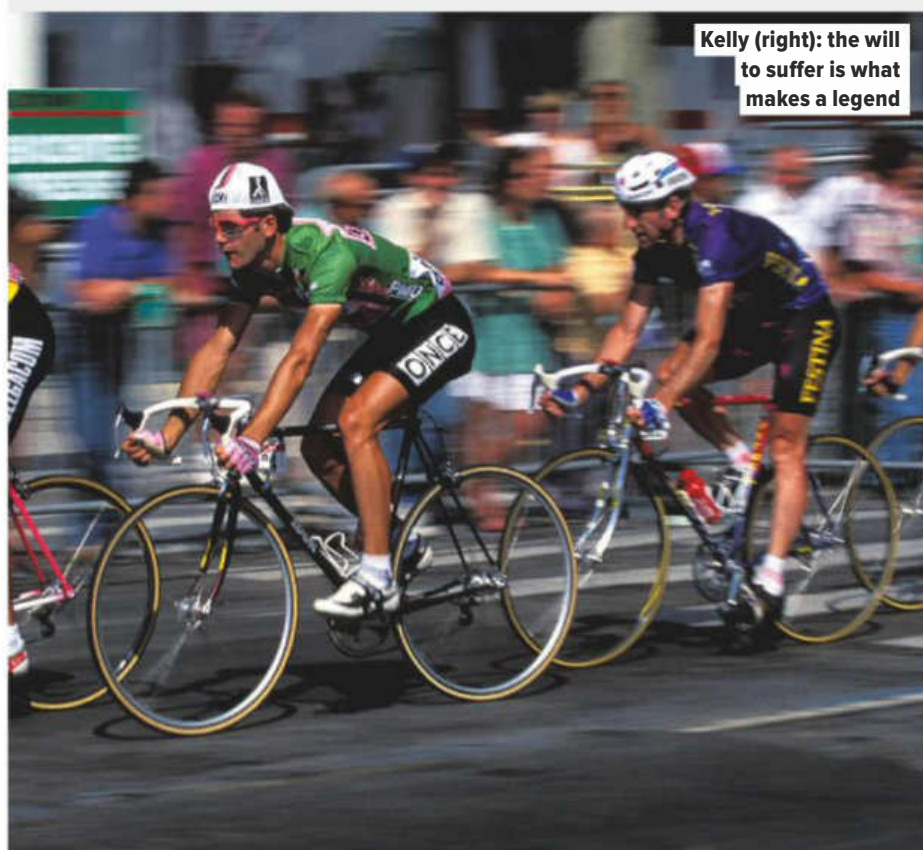
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My toughest day



Sean Kelly Tour de France 1992, Sestriere

I was in a group of around eight or 10 riders with Acácio da Silva and I remember saying to him, “I cannot get to the end of this stage.” He said, “Come on, we’ll stay in this group, they will ride steady to the finish.” He kept on talking to me, motivating me, and I eventually got to Sestriere, I think 25-plus minutes down on the winner.

The next morning I remember waking up and I was totally shattered. I went to the staff saying, “How am I going to get through this day?” But it’s the Tour de France, and if you can you will continue going on.

Of course, there were flashes through my mind of, “Why am I doing this?” but in the Tour de France, in a three-week tour, everybody goes through bad days, even the ones who are going for the win.

You’re hoping that the bad day isn’t on the really difficult days where there are three or four mountain climbs to be done with a mountaintop finish.

But on that particular day, at that point in my career, I was really suffering and you start to ask yourself, “Do I have to do that?” and, “Why am I doing that?”

But a good team-mate can talk you through, motivate you and it’s those little things that can really keep you going.

It’s a mental thing, that’s where it’s difficult. You can lose the will to go on and that’s where you could decide very easily, “That’s it, I’m stopping.” And you get into the broomwagon, but I think unless you’re sick then it’s possible to go on.

When you get to Paris, when you get to the Champs-Élysées that’s a great feeling. Just to finish is always an achievement.

Sean Kelly was speaking to Sophie Hurcom; to see the exclusive video visit cyclingweekly.co.uk

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